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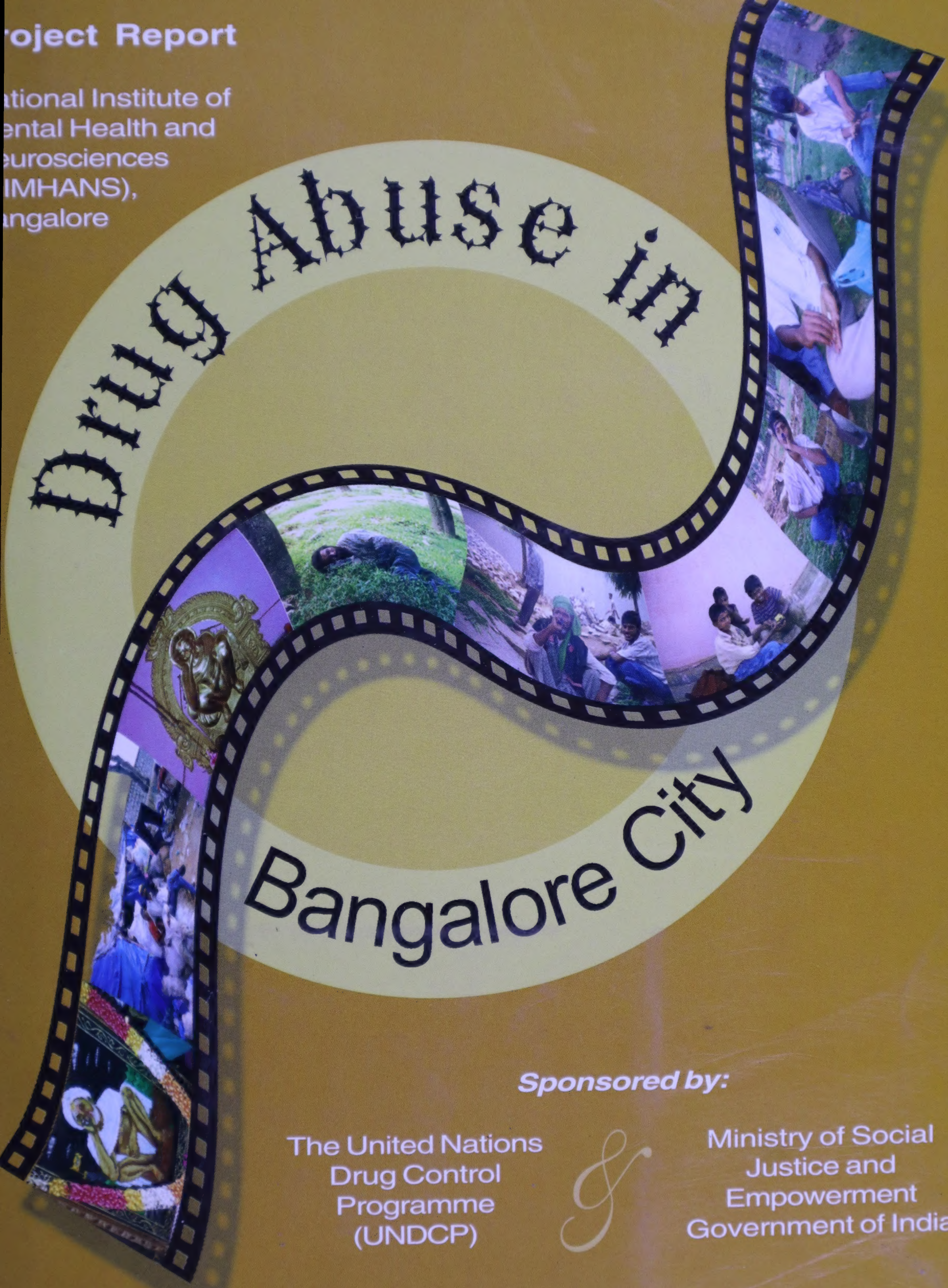
Drug Abuse in Bangalore City



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and the
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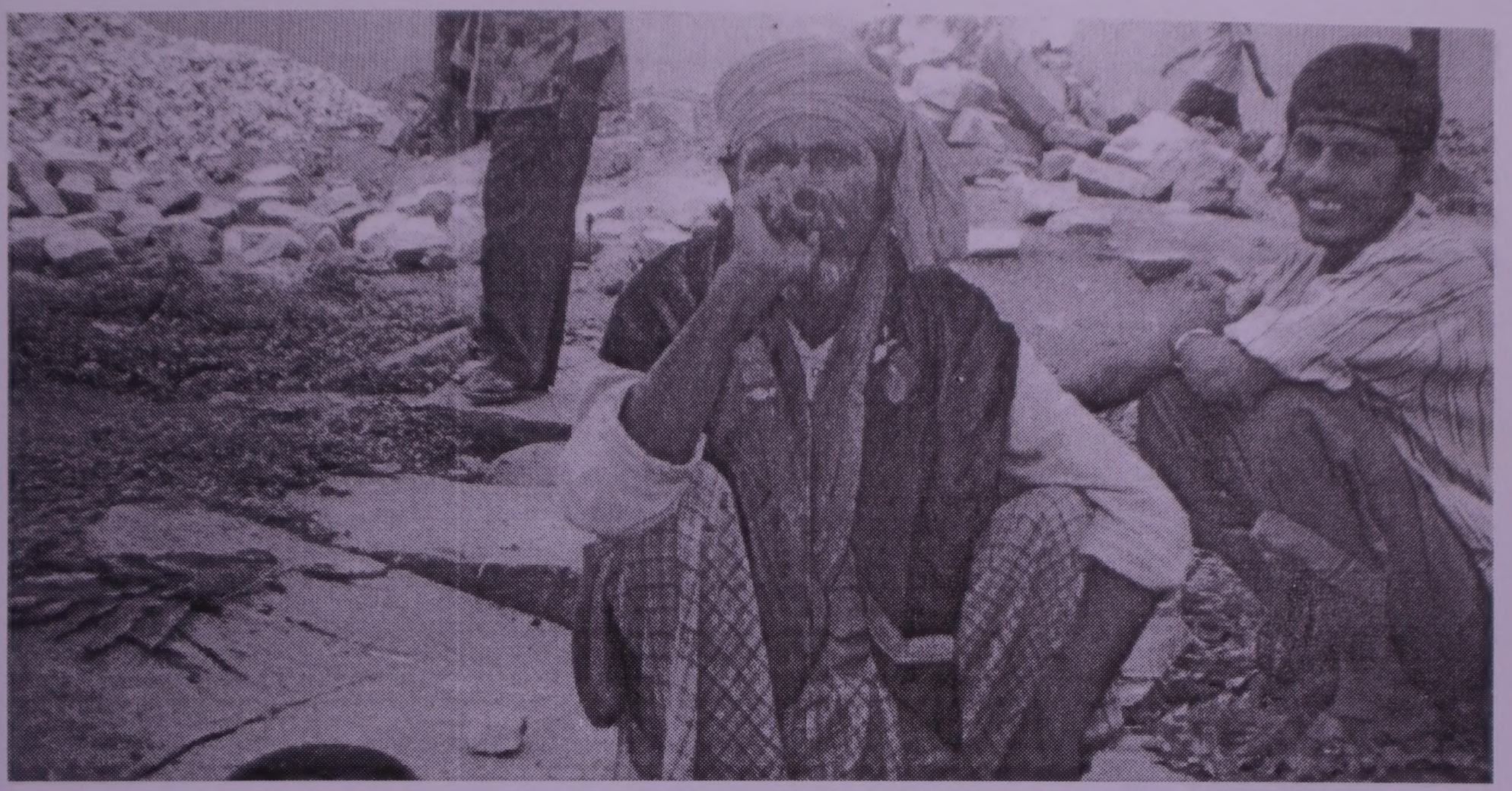

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FOREWORD

The drug menace touches the lives of men, women and children and has major socio-economic and health related consequences for communities; it affects the basic fabric of society.

The United Nations Office on Drugs and Crime, Regional Office for South Asia (UNDCP ROSA) and the Ministry of Social Justice and Empowerment, Government of India have launched major initiatives in the area of drug demand reduction through various projects. One of these is the "National Survey on the Extent, Pattern and Trends of Drug Abuse in India", designed to study vital issues in the area of drug abuse. One of the components of this survey was conducting rapid assessment surveys in fourteen cities of the country including four metros. The current monograph reports the co-findings of the rapid assessment survey carried out in the city of Bangalore.

This monograph is an important step forward in the joint efforts of UNODC, ROSA and the Ministry of Social Justice & Empowerment to generate knowledge on vital drug related issues in the city of Bangalore. It is hoped that this will provide reference points for assessing long-term changes in years to come and will form an important space for systematic planning and programming in the city for evolving a comprehensive response for reducing the demand for drugs as well as their consequences in Bangalore. We would also like to thank the National Institute of Mental Health and Neuro-Sciences (NIMHANS), Bangalore for carrying out the study and contributing to the "National Survey on Extent, Patterns and Trends of Drug Abuse."

Renate Ehmer
Regional Representative
UNODC, ROSA

PREFACE

Drugs of abuse cause a great deal of personal, interpersonal and social adversity. Yet, people continue to use drugs for a variety of reasons. In India, the use of licit drugs such as alcohol and tobacco is well known and several endeavours to prevent and arrest problems related to such drug use are being undertaken. The dimensions of illicit drug use are more difficult to determine, as this is a more hidden problem.

Illicit drug use is influenced by a host of factors ranging from availability of the drug, social and cultural factors, legal restrictions and consequences as well as the local demand for the drugs. Illicit drug use is a dynamic phenomenon and keeps changing from time to time and has several regional variations.

It is thus important to periodically assess the extent and patterns of drug use locally, regionally and nationally, so that effective responses can be formulated. In Bangalore, over the last three decades, there have been periodic attempts to assess the prevalence and local patterns of drug abuse.

The Rapid Assessment Survey of Drug Abuse in Bangalore city carried out by NIMHANS represents the most recent attempt to understand the complexities of drug use - the vulnerable populations, the kinds of drugs, public health consequences and city level responses. It is unique in that it attempts to understand drug use in the city using a variety of approaches and from a variety of perspectives. In addition to key information obtained from policy makers, law enforcement agencies, treatment providers and drug users, primary information on drug users, as well as secondary information from treatment centers and law enforcement agencies have all been put together to provide a more coherent perspective on the hidden problem.

This report has important messages for several groups - professionals involved in drug abuse prevention, intervention and rehabilitation, drug enforcement agencies, policy makers, those working in HIV prevention and intervention, to name a few. I hope that the issues raised in this monograph will help to develop and implement a comprehensive programme of drug abuse prevention in the city of Bangalore.

D. Nagaraja
Director and Vice-Chancellor
NIMHANS

List of Main Abbreviations

AA – Alcoholics Anonymous

AIDS – Acquired Immune Deficiency Syndrome

APEX – Addiction Patient Evaluation Exchange

CAIM – Chemical Addiction Information Monitoring

CREST – Centre for Research, Education, Service and Training

DRI – Directorate of Revenue Intelligence

HDI – Human Development Index

HIV – Human Immunodeficiency Virus

IFCU – International Federation of Catholic Universities

NA – Narcotics Anonymous

NACO – National AIDS Control Organisation

NCB – Narcotics Control Bureau

NDPS – Narcotics and Psychotropics Substances Act

NGO – Non Governmental Organisation

NIMHANS – National Institute of Mental Health and Neurosciences

RAS – Rapid Assessment Survey

RSA – Rapid Situation Assessment

TRADA – Total Response to Alcohol and Drug Abuse

UNDCP – United Nations Drug Control Programme

Executive Summary

Bangalore is ahead of many other cities in the country with respect to several human development indices. The city has always been a trendsetter, even when it comes to the use of drugs. There have been anecdotal reports of experimental use of many kinds of drugs, especially among students. In the last 2 decades there has been a perceptible change in pattern of drug use. Alcohol abuse, however has been a greater problem and other drug use, though increasing, has not reached alarming proportions.

Improved communication and new drug trafficking routes via road, the increase of opiate use in adjoining states all suggest that Bangalore is being used as a conduit for trafficking of drugs. Consequently, there has been the expected drug spill over in Bangalore, leading to increased consumption. Changing lifestyles, improved earning capacities and anomalous life situations may also contribute to increasing drug use.

As a response to the problem especially with alcohol and other drug abuse, many treatment, rehabilitation and counselling centres have been started in the last two decades. After the detection of the first case of HIV AIDS (Acquired immune deficiency Syndrome) in the state in 1988, there has been a steady increase in sero-prevalence, prompting concerted efforts to combat HIV/AIDS by government and non-governmental agencies in the last decade. Despite the responses, there has been a continuing increase in both these problems.

The Rapid Assessment Survey (RAS) was part of a national initiative to study trends in drug abuse. The RAS Bangalore proposed to study the current drug use patterns in the city and document trends of drug use across time. It attempted to assess problems related to drug use, especially sexually transmitted diseases (including HIV) and crime. In addition to a structured interview of drug users identified through a snow balling approach, qualitative methods such as key informant interviews, in-depth interviews, ethnographic observations and focus groups were used. Drug use information was obtained through primary interviews for 274 respondents. In addition, secondary data was obtained for 257 drug users from treatment centres. Other sources of secondary data included law enforcement agency reports, HIV surveillance data and media reports.

Apart from alcohol, cannabis is the most commonly used drug in the community. It is followed by opiates, especially heroin (brown sugar) and inhalants. Patterns and choice of drug appear to be determined by availability, cost, and socio-economic and cultural background. A majority of the drug users also smoked tobacco. Injecting drug use is relatively uncommon. While cannabis users and inhalant users more often tend to use a single drug, other drug users use multiple drugs. In treatment centres, opiate use is overrepresented, possibly indicating the limited accessibility to treatment services of the better educated and more affluent.

While injecting drug users are few in number, almost half have unsafe injection practices.

Risky sexual behaviour is a common phenomenon among drug users. Initiation of sexual experience also seems to occur with casual contacts. Although the reported knowledge of HIV/AIDS appears high, there appear many misconceptions about modes of transmission, suggesting a lacuna in factual knowledge. Condom use is very low. Despite knowledge of risk, high-risk practices continue.

When trends of drug use are compared with earlier studies, cannabis continues to be the most common drugs of use. Heroin, which emerged as a drug of use in the 1980's, appeared to have given

way to other opiates such as pentazocine and buprenorphine in the late 1980's and early 1990s. The mid-1990's saw a shift to oral narcotic analgesics, but the last few years have witnessed the re-emergence of heroin. Law enforcement data of seizures and media reports support this observation.

The number of users of different kinds of drugs is a cause for serious concern. Inhalant use among the street and slum dwellers and the poorer sections is alarming.

Bangalore has been pro-active in the setting up of treatment centres and counselling centres for both drug use and HIV. However, there is an obvious need to aggressively reach out to the community rather than focus only on treatment centre based approaches, which appear to have a very limited reach. Sex education at all levels, both in formal and informal settings is extremely important.

The study highlights the lacunae in co-ordination between law enforcement agencies, paucity of secondary sources of information especially in the health sector (recording of drug use in emergencies, drug use related mortality, etc) and the lack of monitoring mechanisms for the sale of psychotropics.

The study emphasises the need for continued training of health, treating and law enforcement personnel, better documentation at treatment centres, education of community leaders in the area of drug use/HIV and the need to address community strategies to prevent drug use.

In the larger context, the study recommends that the city, country and region need to address several larger issues such as illiteracy, poverty, poor health, living and environmental conditions and other adverse social factors, all of which influence the use of drugs.

1. Introduction

All over the world, individuals and societies face the problem of drug abuse. Such abuse has been escalating gradually but surely over the last 5 decades. The drug phenomenon affects numerous aspects of living: at the individual level, it can cause serious physical, psychological, social and occupational damage. At a wider level, drug use can seriously affect environmental, economic and political issues. Much needs to be done to understand the forces that lead individuals to resort to drugs. Understanding these could help guide drug control at the local, national, regional and international levels.

Information and a better understanding of the problem are essential prerequisites for progress in meeting this aim, and the World Drug Report (1997) was one such effort at a comprehensive analysis of the illicit drug use and its global ramifications. This was followed by the South Asia Drug Demand Reduction Report (1998), the first attempt to consolidate information from the South Asian region with regard to drug abuse.

1.1. Drugs Scenario in South Asia

The drug scenario in South Asia is significant for the following reasons:

- 90% of the world's illicit opiates emerge from the Golden Crescent (Afghanistan and Pakistan) and the Golden Triangle (Laos, Myanmar and Thailand)
- Countries like India have a large and vibrant pharmaceutical industry, producing large amounts of psychotropics for medical use, but poor control mechanisms encourage diversion to illicit use
- Societal controls on traditional use of opium and cannabis in India are disappearing
- Plant products have been replaced by semi-synthetic drugs
- Spiralling health consequences of drug abuse occur in the form of Human Immunodeficiency Virus (HIV), Hepatitis, and Tuberculosis, socio-economic consequences including rising crime, violence, and family disintegration.
- Drug abuse related problems intensify on account of pre-existing problems such as overpopulation, poor socio-economic development and changing economic systems

1.2. Drug Use in India

The South Asia Drug Demand Reduction Report estimated in 1998 that India with a population of 944 million had 2.25 million drug addicts. More recent unpublished projections suggest that this number may be closer to 10 million (drug users). Cannabis, opiates and benzodiazepines have been recognised as common drugs of abuse, apart from the ubiquitous alcohol. Regional variations in drug use are well recognised. For instance, opium use is reported more commonly in Punjab and Rajasthan, heroin in Manipur, various opiates in Delhi, cannabis in Uttar Pradesh, Himachal Pradesh and Bihar, and alcohol in South India. Heroin use, first reported in 1981 has escalated after 1986. Changing trends in drug abuse are evident with cough syrup, glue, boot polish, solvents, buprenorphine, and pentazocine added to the spectrum of abused drugs. Injecting drug use is extremely common in the North Eastern States, but is emerging as a problem in several cities in India (Rapid Assessment Survey 2001). Within the four southern Indian states, Andhra Pradesh, Kerala, Karnataka and Tamil Nadu, there are differences in drug use patterns, based on geographical location,

accessibility, population, political environment and vigilance.

Presented here is an overview of the historical aspects of drug use in India and the various forces that maintained or altered drug use patterns in the country. The focus will then shift to India's 8th largest state, Karnataka, and its capital city Bangalore.

1.3. Historical Trends in Drug Use

India has a long and varied history of drug use. For thousands of years, various drugs have been considered an essential part of Indian religious ceremonies (see Machado 1994 for a detailed historical review).

The Arabs are said to have carried the use of opium to India and China about the 9th Century AD (Chopra and Chopra 1965). Early records of poppy cultivation in India date back to the 15th century. Poppy was extensively grown during the Moghul period as an important article of trade with China and other eastern countries. Opium has been used in Ayurvedic preparations for the treatment of diarrhoea and dysentery. It was also thought to improve sexual and muscular power. Opium was also used as a household remedy for ailments such as cough, bronchitis, asthma, diarrhoea, dysentery, colic, chills, haemorrhoids, recurrent febrile attacks, nervous trouble and various painful conditions.

Cannabis use in India has also been known for centuries, dating back to the period of the Atharvaveda. Early Indian use of cannabis was mainly religious. Cannabis continues to be consumed or smoked in various forms, namely bhang, charas, and ganja during religious ceremonies. Cannabis is often offered as 'prasad' or blessing in temples on festive or ceremonial occasions. Bhang is extensively consumed in parts of India during Shivaratri, when Lord Shiva is propitiated by pouring bhang on the Linga. Bhang is also consumed during Ganesh Chaturti, Ramnavami, and Holi. It has been used by ascetics and religious mendicants to 'overcome thirst and hunger', by Sadhus for 'freeing the mind from worldly distractions and concentrating on the worship of God'. Cannabis was also used as a medicine for its analgesic, anticonvulsant, hypnotic and muscle relaxant properties. It was especially used in rural areas for the treatment of enteritis, dyspepsia, gonorrhoea, nervous disorders and rheumatism.

Behavioural problems associated with cannabis use have also been recognised. About 17% of the admissions at the Mental Hospital in Bangalore in the early part of the century were attributed to the "Insanity of Hashish."

Alcohol use has been alluded to in the Rig-Veda Samhita with a hymn that says, 'Wine was kept in leather bottles and sold to all comers' (Hasan 1922).

Earlier use, however, occurred in association with social rituals and in religious contexts and this kept the problems related to drug use fairly contained. Additionally, drug use was predominantly in the crude, oral form, and thus very little active ingredient was ingested.

Restriction in Drug Availability

Cannabis was grown and used extensively until 1881, when an Act was passed restricting the use of these drugs. The Indian Hemp Commission (1893) was appointed by the British Government to enquire into the deleterious effects of cannabis use and concluded that there was no evidence of serious mental or moral injury or disease arising from moderate use. Following this report, the Act XII of 1893 was passed empowering the Government to exercise absolute control on the cultivation of the plant, preparation, export and transport of the drug thereafter (Rao 1993)

Post Independence, in the All India Narcotics Conference of 1956 and 1959, it was resolved that non medical use of ganja and bhang should be totally prohibited over the subsequent two to three years. This proved impractical, and therefore, restrictions were placed on cultivation to the minimum required and limits of personal possession fixed at a very low-level (23 g). India was a signatory to the Single Convention on Narcotic Drugs in 1964 where a commitment for total prohibition of non-medical use of cannabis was made.

Opium too was extensively cultivated during the Moghul dynasty. The British took over the opium trade in 1757 through the East India Company. Through various legislations (The Bengal Regulation IV of 1797, The Bengal Resolution of 1813), the Company took over control of the procurement and manufacture of opium, and placed restrictions on opium eating by 'obtaining the maximum revenue from the minimum consumption' (Chopra and Chopra 1965). Opium was the third largest revenue earner after that of land and salt under subsequent reign of the British Crown. The Royal Commission of 1893, set up to inquire into the prevalence of the opium habit reported that the smoking of opium and its use as a beverage was rare. The report concluded that 'the opium habit as a vice scarcely existed in India, and that opium was extensively used for medical and quasi-medical purposes, in some cases with benefit, and for the most part without injurious consequences'. It was felt that the medical and non-medical use was so interwoven, and misuse being a negligible feature in Indian life, that prohibition was not feasible. There was also concern that such prohibition may lead to increase in alcohol consumption. Based on this report the British Government published a dispatch on opium eating stating that it was impossible to entirely prohibit it (Austin 1978).

Under the Indian National Congress in 1937, opium use was banned locally in some provinces. Free medical treatment centres were started for opium addicts (Chopra and Chopra 1965). In 1946, the Government of India prohibited the eating and smoking of opium. Exceptions were made only in the case of registered addicts, who had to produce medical certificates periodically, in order to get their supply of opium. In 1949, the Constitution of India proclaimed that 'the State shall endeavour to bring about the prohibition of consumption, except for medical purposes, of intoxicating drinks and drugs which are injurious to health'. The control of cultivation and manufacture of opium in India was brought entirely under governmental control in 1950, and an All India Narcotics Board to unify and rationalise the system of control. By 1954, a reduction in consumption by 45% was noticed, primarily because of reduced production and increased price (Chopra and Chopra 1955). In 1959, the sale of opium was totally prohibited except for small amounts consumed by registered addicts on medical grounds (number estimated as 14,993 in 1992 as per the report of the Narcotics Commissioner (Drug Demand Reduction Report 2000). Legal cultivation of opium continues in Rajasthan, Madhya Pradesh and Uttar Pradesh.

Drugs as Excise Revenue

Through the Moghul and British Periods as well as in post-independent India, various intoxicants have been important sources of excise revenue. The principal sources of excise revenue were from taxes upon:

- The manufacture and sale of intoxicating liquors
- The sale of foreign liquors imported from abroad or manufactured in the country
- The tapping of toddy palms and sale of toddy
- Manufacture and sale of opium and its preparations for local consumption
- The manufacture and sale of hemp drugs like ganja, charas, bhang
- The manufacture, sale, or both of other narcotic or intoxicating drugs like cocaine and morphia (Hasan 1922).

Traditionally the Governments have supported excise policies in respect of these intoxicants as they rake in huge amounts as revenue.

1.4. Specific Legislation for Control of Supply and Restrictions for Use

The Opium Acts

The Opium Act of 1957 was an attempt to consolidate and amend the laws relating to the cultivation of poppy and the manufacture of opium. The Opium Act of 1878 aimed at regulation of possession, sale, purchase, transport, import or export of opium and provided for punishment for infringement. Powers to seize unlawfully produced opium were vested with the Police, Excise, Revenue and other authorities. Both the Acts operated simultaneously.

International focus on the dangers of drug use and need for restriction of narcotic use for medical and research purposes alone led to the Opium Convention in 1925 at Geneva. This concern translated in India to the enactment of the Dangerous Drugs Act of 1930. This Act dealt with control of offences related to drugs like cocaine and cannabis besides opium. While the Opium Act focussed on revenue earnings, the new Act concentrated on the social aspects of narcotic drug use. Subsequently the Opium and Revenues Act of 1950 extended the earlier 3 enactments to the whole of India.

Between 1961 and 1988, India was a signatory to various international conventions: the Single Convention on Narcotic Drugs (1961), Convention on Psychotropic Substances 1971, the 1972 Protocol amending the Single Convention on Narcotic Drugs of 1961 and the Convention on Psychotropic

Summary 1. Legislations covering manufacture, sale and behaviours related to intoxicating drugs including alcohol

- Excise Act
- NDPS Act
- Employees State Insurance Act
- Workmen's Compensation Act
- Motor Vehicles Act 1988
- Indian Railways Act 1989
- Indian Penal Code
- Criminal Procedure Code 1973
- Indian Contract Act 1872
- Indian Succession Act 1925

Substances (1988). India was thus under obligation to translate its commitments into law. The existing laws were grossly inadequate in that:

- Penalties for offences were grossly inadequate
- There were no provisions applicable to offences related to psychotropic substances
- Offences were not clearly defined
- No provision was made for the treatment of addicted persons

In the early 1980's heroin made its appearance as a drug of abuse in India (Drug Demand Reduction Report 1998), and abuse of many other drugs including psychotropics began to increase. This situation was the backdrop to the enactment of the Narcotics and Psychotropic Substances Act (NDPS) of 1985.

NDPS Act

As in the rest of India, the Narcotics and Psychotropic Substances Act (NDPS) constitutes the primary legislation for drug control. The NDPS Act (1985) provides for:

- Punishments for illegal possession including fine/and or imprisonment variable for each drug and the amount possessed.

  Differentiation between trafficker and addict based on quantities possessed. If the person is found with a quantity less than the prescribed amount, and can prove that it is for personal consumption, he is viewed under the Law as an addict
- Forfeiture of property derived from or used in illicit trafficking
- Establishing of centres for identification and treatment of addicts by Government
- Setting up of a National Fund for control of drug abuse (Kumar and Tiwari 1989)

The NDPS (Amendment) Act of 1988 made some significant amendments that primarily include:

- Constitution of a National Fund for drug abuse control
- Death penalty on second conviction in respect of specified offenders involving specified quantities of certain drugs (Section 31)
- No possibility for suspension, remission, or commution of sentences awarded in the Act (except Section 27 dealing with personal consumption).
- Making the offences under the Act cognisable and non-bailable.
- Setting up of Special Courts for trial in case of offences under the Act
- Providing immunity from prosecution to an addict volunteering for treatment for de-addiction once in his lifetime

The NDPS Act has provided for a large number of authorities functioning under the supervision of both Central and State Government in order to reach the entire country. However there have been major problems with enforcement (Rao 1993).

1.5. Structure of this Monograph

With this background to the historical aspects of drug use in India and the forces that defined drug use patterns in the county, in Section 2 we shift focus to the drug scene in India's eighth largest state Karnataka and its capital city, Bangalore. Bangalore was one of the 14 urban sites covered under the Rapid Assessment Survey (RAS). The RAS for Bangalore City was undertaken by the National Institute of Mental Health and Neurosciences (NIMHANS), a premier institute of psychiatry and the neurosciences that combines clinical service, research and training in these areas. Section 3 lays out the objectives of the survey and a brief summary of some of the previous surveys on the drug scene in Bangalore. Section 4 presents the methodology adopted in the RAS. Section 5 presents the main findings of the RAS including profile of users, drugs used, drug using practices and related health complications. It compares the findings of the Bangalore study with the nation wide study (RAS 2002). Section 6 discusses the development of responses and Section 7 the limitations of the study. The last section, Section 8, comprises the summary and recommendations.

2. Karnataka And Bangalore

2.1. The State of Karnataka

Karnataka is the eighth largest state in the country in both area and population. It currently has an estimated population of 52 million people (45 million as per 1991 census). The state constitutes 5.83% of the country's population. Fifty-one percent of the population is male. The state is more urbanised than the rest of India with 31% of its population living in urban areas against 26% in the entire country.

Development Indicators

The Human Development Index (HDI) for Karnataka, calculated between 0.442 to 0.448, places it slightly over the national average of 0.439, but lower than states like Kerala (HDI 0.603).

Health Indicators have improved considerably with Infant Mortality Rate down to 51 per 1000 and the crude birth rate to less than 23. The number of medical institutions has more than doubled while the number of beds in government hospitals has increased 3-fold since 1960. However public health facilities are unevenly spread across the state, with both health infrastructure as well as health status being poor in the northern areas.

Box 2. History of Karnataka

The state existed in a unified form at the time of the Chalukyas in the seventh century AD, and subsequently flourished under the Vijayanagar Empire. It became divided under British rule for historical and administrative reasons. In 1956, during the reorganisation of states, 9 Kannada speaking territories bordering Mysore-from the Bombay and Madras Presidencies, the princely state of Hyderabad and Coorg merged with the ten districts of the old state of Mysore. Kannada became the official language of the new Mysore state which was renamed Karnataka in 1973. Karnataka has 27 districts. In 1986, a separate Bangalore Urban district was carved out of Bangalore district.

The state has always been progressive in the field of education and health. In the pre-independence era, when the country's literacy was 16.6%, 20.3% of the people of old Mysore were literate. The state of Mysore was perhaps the first state in the country to take up vaccination against small pox. A government hospital was set up in Bangalore in 1846, and the first public health unit opened in Mandya in 1929. The first 2 birth control clinics in the world were set up by the government of Mysore in 1930. There were 585 medical institutions in old Mysore. Presently the State is estimated to have 2624 health institutions, including 1676 primary health centres (Karnataka Developmental Report 1999).

Box 3. Governmental Responsibility for Health and Welfare

The Department of Health and Family Welfare, Government of Karnataka regulates the public sector health network and decides on various policy matters relating to public health.

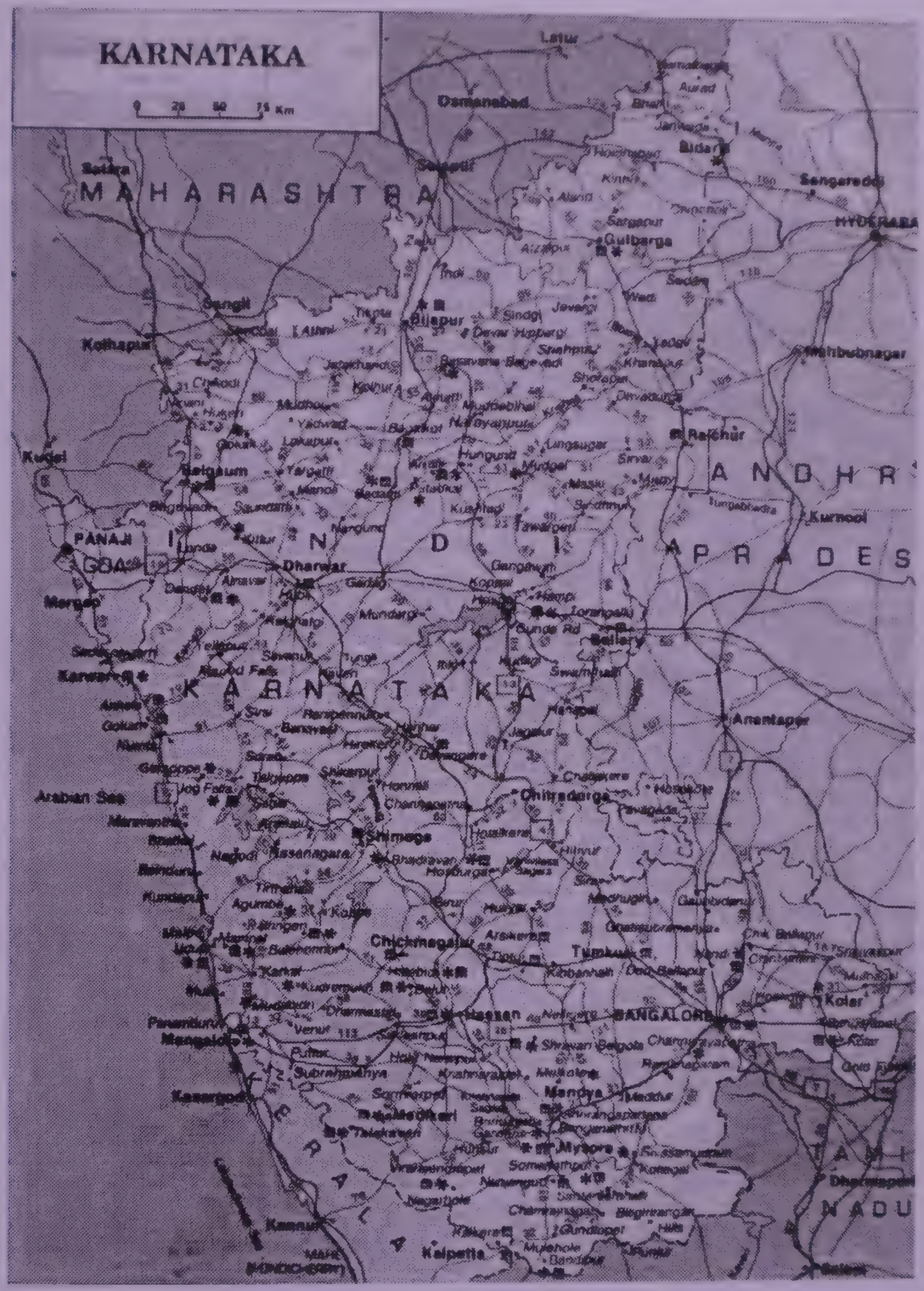
The Ministry of Health and Family Welfare, Government of

Box 3 Contd.

India, has been supporting a De-Addiction Centre at the National Institute of Mental Health and Neuro Sciences. This has been recognised as the Regional Centre for Substance Abuse Prevention by the Ministry of Health. The Ministry has also supported a 10-bed substance abuse treatment centre at the Victoria Hospital, one of the busiest government hospitals in the city of Bangalore.

The Ministry of Women and Child Welfare co-ordinates various welfare programmes. The rehabilitation of persons with addiction falls under the purview of this Ministry. This Ministry channels the funds from the Ministry of Social Justice and Empowerment, Government of India to various counselling, awareness and rehabilitation centres in various parts of the country, including Bangalore.

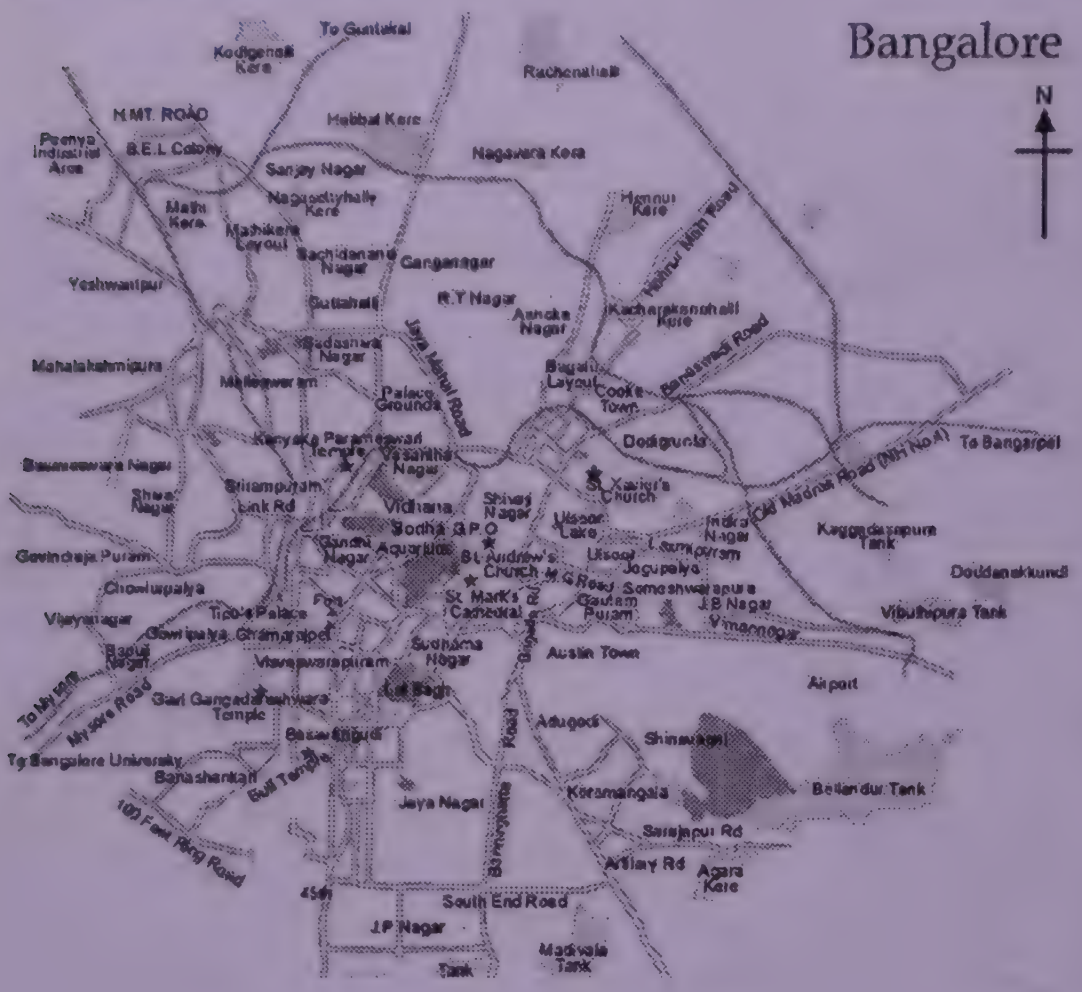
The Temperance Board set up by the Government of Karnataka brings out information and education material for the prevention of alcohol misuse in the State.



2.2. Traditional Use of Intoxicants

Karnataka, like other Southern States, has known the traditional use of cannabis and opiates, but social use is on a much smaller scale in comparison with the rest of the country. In some tribal communities in Karnataka, the bride's family ritually serves cannabis during weddings. Cannabis is drunk in the form of Ramarasa, in a sweetened mixture, on festivals such as Ramnavami, Krishnastami, and so on.

2.3. Bangalore City



Map of Bangalore

Bangalore, the capital of Karnataka, has metamorphasised from the "Garden" city and "Pensioners Paradise" into the "Silicon Valley" of India. Situated at an altitude of 3,000 ft above sea level, this metropolitan city covers an area of about 60 sq km.

Urban Bangalore has a HDI of 0.601, placing it at 110 in the global ranking.

The momentum of its growth in industry and commerce has made it one of the premier technological cities of India. It is the principle administrative, commercial and industrial centre of the state of Karnataka. Bangalore is also the home of the International Technology Park, which has over 150 InfoTech companies and 5000 computer specialists.

With a population of over 5 million, Bangalore is a rapidly growing cosmopolitan city,where both traditional influences and rapidly changing environment can potentially influence behaviour, including drug use.

Box 4. History of Bangalore

The earliest reference to the name "Bengalooru" from which "Bangalore" is derived occurs in a 9th century AD stone inscription. The legend about the old lady offering King Ballala boiled beans "benda-kaalu" leading to the Bangalore area being named "Benda-Kaal-ooru" dates back the 12th century AD.

In the year 1537, Kempe Gowda built as the nucleus of his new city of Bangalore, a mud fort, with eight gates which lent their names to different areas: Ulsoor Gate, Kengeri Gate etc. Inside the fortress walls, the city grew into a bustling commercial area, dividing into pets or localities where one trade dominated each area. To this day these areas bear their countries' old names, such as Chickpet (little town), Doddapet (big town), Taragupet (grain market), Halipet (cotton market) etc. In 1687, the Moghuls captured Bangalore from the Bijapur Sultanate and gave it on lease to King Chikkadevaraya Wadiyar of Mysore, eventually selling the city to the Mysore rulers for a paltry 5 lakh Rupees! In 1759, Bangalore came into the possession of Hyder Ali, father of Tippu Sultan. During their reign, Bangalore flourished with parks, gardens, and palaces. The British captured the town in 1799 and installed Krishnaraja Wodeyar III as the ruler of the state. Following disorders in state, the British resumed administration in 1831 and retained it until the rendition of the state to the Wodeyar dynasty in 1881. When the Indian states were reorganised on a linguistic basis by the States Reorganisation Act of 1956, a new Mysore State (renamed Karnataka in 1973) was formed to unite the Kannada-speaking areas of the country and Bangalore remained the state capital.

Bangalore has always received much attention both by the local rulers and during

Box 4 Contd.

British rule, in areas of education, medical care, and social development. Under the British, it was divided into two main areas: the Pettah or the market area and the civil and military station (around the Cantonment). This area included several of the 'towns'-for eg. Fraser Town, Cooke Town, Richmond town etc, where much of the Anglo-Indian population resided.

Today, the State Secretariat is housed in the Vidhana Soudha. The Chief Minister and a team of other Ministers constitute the Cabinet. There have been significant recent infra-structural developments. A State Task Force on Health has also been set up to monitor and recommend initiatives to improve health care within the State. The City's Mayor and the City Corporation is responsible for the civic amenities in the City. The police are the primary law enforcement agency. In addition, there are several other law enforcement agencies in relation to drug abuse control.

g 3. Depiction of Parappa Swamy smoking cannabis

Traditional Use of Intoxicants

As in the rest of Karnataka, traditional use of cannabis and opium have been known in and around Bangalore. Such use is well illustrated by the use of ganja at the Parappa Swamy Mutt.

In a small, sleepy village 20 kilometres from Bangalore is the Parappa Swamy Mutt where the presiding deity is Parappa Swamy, depicted smoking ganja. This was established in 1905, in honour of Parappa, who had propagated the use of cannabis to increase religious insight. The temple has pictures of several deities related to the Shiva cult. According to the priest, cannabis use was approved at the temple traditionally only for older people with no family responsibilities. About 30 to 40 smokers are still said to frequent the temple, though of late the practise has been discouraged.

Opium and cannabis trade existing from the times of the British and the same excise rules applied to the South. However, large-scale opium use has not been known in Bangalore.

2.4. Changing Patterns of Drug Use

Bangalore has had reports of experimental use of many kinds of drugs, including LSD, cocaine, magic mushrooms, and amphetamines apart from cannabis, opiates, and sedative hypnotics. However, such use in the past does not seem to have been of any phenomenal proportion or contributing to serious public health problems. The pre-occupation of treatment professionals has been with alcohol related problems.

One of the reasons for the containment of the use of illicit drugs has been that Bangalore is quite far from the opium-growing belt. Until fairly recently, Bangalore was not extensively connected to the outside world, as it had neither an international airport nor port. There was a fair amount of vigilance and regular seizures of illicit drugs, restricting their availability. However, improved communication, new drug trafficking routes via road, the increase of opiate use in adjoining states such as Tamil Nadu have an impact on the drug scenario in Bangalore. Bangalore is being used as a conduit for drug trafficking for drugs en route to Vizag, Tuticorin and Cochin, and even to Sri Lanka and other parts of the world.

2.5. Responses to Drug Abuse-Treatment and Prevention

As a response to the problem with drug abuse, especially alcohol, many treatment centres, rehabilitation centres and counselling centres have been started in the last 2 decades. There are regular awareness

programs in schools and colleges. The city has been a part of at least 2 large surveys on the extent and problem of drug abuse. There is an active Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) presence in the City. A network of organisations working in the area has been in existence since 1995.

Drug abuse management is offered through different kinds of services. There are counselling centres, treatment centres and rehabilitation centres in the government, private and voluntary sectors. Many hospitals and emergency departments are equipped to handle drug-related emergencies. A summary of the active centres is provided in the accompanying table.

Table 1. Specialised treatment centres for drug abuse in the city

Organisation	
Government Organisations under the Ministry of Health and Family Welfare	
National Institute of Mental Health and Neuro Sciences (NIMHANS)	In-patient, outpatient, and emergency services. Comprehensive treatment Program
Victoria Hospital	In-patient, outpatient, and emergency services.
General Hospital Departments of Psychiatry	
St John's Medical College Hospital	In-patient, out-patient and emergency services.
Kempegowda Institute of Medical Sciences	In-patient, outpatient, and emergency services.
MS Ramiah Hospital	In-patient, outpatient, and emergency services.
Manipal Hospital	In-patient, outpatient, and emergency services.
Non-Governmental Organisations	
Chemical Addiction Information Monitoring (CAIM)	Treatment cum Rehabilitation
CARE	Treatment cum Rehabilitation
Centre for Research, Education, Service and Training (CREST)	Preventive Counselling, training, community awareness
Divyasri	Treatment cum Rehabilitation
Freedom Foundation	Treatment cum Rehabilitation, Persons living with HIV/AIDS, respite care
Total Response to Alcohol and Drug Abuse (TRADA)	Treatment cum Rehabilitation, training
Nursing Homes/Centres with identified interest in drug abuse management	
SpandanaMind Medical Centre	Comprehensive program, inpatient and out-patient

Some of the large hospital based organisations such as NIMHANS and St John's Medical College Hospital carry out bio-psychosocial interventions, with medications for detoxification and long term abstinence, treatment of dual diagnosis, individual, group and family therapy. Some of the organisations such as TRADA borrow from the Minnesota and Hazleton models. Others such as Freedom Foundation, CAIM etc follow social –spiritual models based on the 12 steps of the AA and therapeutic community.

Many professionals from both hospitals and treatment centres participate in awareness programs in schools, colleges, and workplaces.

In addition to the treatment centres, there are counselling centres such as Helping Hand, which offer emotional support to persons in crisis. They commonly encounter drug-related problems and help these clients access treatment services. HOPE Claretian Seminary is an anti-Addiction Action Group whose main objectives are prevention and awareness about the problem of drug abuse. The city police participate in drug demand reduction in two specific ways. They have instituted a cell called the Vanitha Sahayavani in the premises of the Police Commissioner, for women in distress. Many of the help seekers are women with alcoholic husbands for whom social assistance is provided in the form of counselling and treatment referral. They also organise lectures to college students on drug abuse during the Crime Prevention Week for the last couple of years. Voluntary organisations such as the Rotary and Lions Clubs periodically organise drug abuse prevention programs.

Alcoholics Anonymous (AA)

The origin of the Alcoholics Anonymous in India dates back to 5th May 1957. In Bangalore, the AA program was initiated later that year. Bangalore has more than 13 AA groups. Many of the members are very active and some have themselves started treatment centres. Many of them facilitate referral to treatment of persons with serious drug abuse problems. The AA until recently accepted largely by the educated, has also started conducting meetings in slum areas.

The Al-Anon, for spouses of alcoholics is also active in Bangalore along with the Alateen for children of alcoholics.

Narcotics Anonymous (NA)

The Narcotics Anonymous (NA) programme, a self support group for recovering drug users had its birth in Bangalore City in November 1988, when its first member completed one year of a drug free period with the help of the AA. The first meeting was held in May 1989. Since then, the NA has grown gradually and currently has six active groups operating in Bangalore and has at least 150 active members who have 'cleaned up' and an equal number trying. Many of the substance abuse treatment centres refer dependent individuals to such meetings.

2.6. Drug Supply Control-Enforcement Agencies

The major law enforcement agencies concerned with drug abuse in the city include:

- The Narcotics Control Bureau
- Central Customs and Excise Department
- Directorate of Revenue Intelligence (DRI)
- State Police Department
- Drug Controller's Office
- City Civil Court which deals with NDPSA Cases
- Central Prison Bangalore, which houses those arrested under the NDPS Act
- Forensic Science Laboratory

The Narcotics Control Bureau (NCB)

Set up under Section 4(3) of the NDPS Act has zonal offices in Bombay, Calcutta, Delhi, Varanasi and the south zone office in Chennai. Apart from functioning as an independent law enforcement agency, it acts as a national nodal agency for internal and international co-ordination and co-operation in the matter of law enforcement issues to prevent drug trafficking, and hence drug availability. Its functions include investigations of drug offences of national and international nature, collation and dissemination of intelligence at both levels, building up a national drug information system, assistance for developing policy, identifying areas of weakness in investigations, prosecution and suggesting remedial measures including legislative improvements. It also provides training for the various enforcement agencies.

Central Customs and Excise Department

This department has a separate wing, which deals with narcotic drug related enforcement along with other activities. This department looks into illicit trafficking of large quantities of drug via road and air. The State Excise Department-Narcotic Wing is also empowered to control illicit trafficking of drugs. In Bangalore, the State Excise Department is largely concerned with alcohol related issues.

Directorate of Revenue Intelligence (DRI)

A part of the Customs, this establishment deals with drug trafficking.

State Police

The State Police play a vital part in dealing with drug peddling. The drug enforcement activities are carried out under the Deputy Commissioner of Police (Crime Branch). The State Police Department also has a separate Corps of Detectives, an independently functioning unit that is also involved in supply reduction activities.

Drug Controller's Office

This office is mainly concerned with detection of illegal sales of over the counter drugs, and restriction of sales of psychotropics that have abuse potential, through prescription monitoring and periodic checks.

City Civil Courts

The City Civil Court has a separate division, which deals with NDPS Act cases. This division deals with trials of cases booked in and around Bangalore under this Act.

The Forensic Science Laboratory

This laboratory assists the investigating agencies investigating cases under the NDPS Act by identification and quantification of the drugs sent for analysis, provides information on the parent drug, origin of the drug and its likely source.

Apart from these agencies, the Border Security Force, City Reserve Police are also empowered with law enforcement authority in preventing drug trafficking and peddling.

2.7. HIV and AIDS

The first HIV sero-positive case and the first case of AIDS were detected in Karnataka in 1988. Since then, there has been a marked increase in sero-prevalence rates of HIV. Under the National AIDS Control Organisation (NACO), Sentinel Surveillance has been initiated in antenatal clinics, STD and drug deaddiction clinics. Voluntary testing is offered at many centres. A state level body, the Karnataka State Aids Prevention Society has been set up. Many Non Governmental Organisations (NGO) are actively involved in HIV prevention and some offer residential care for persons living with HIV/AIDS.

stimates for HIV infection in the tate of Karnataka range from 50,000 to 295,000 (Ravi 2000). hese estimates have been rived at based on three different alculations- the UNAIDS stimates, Sentinel Surveillance stimates from antenatal and TD clinics in Karnataka in 999.

nder the Sentinel Surveillance roject, blood samples drawn for ther tests are labelled nominally order to delink their identity. nly age and sex are recorded. hese samples are tested for IV/AIDS. Some categories like ommercial sex workers and ng distance drivers are identified s high-risk groups. Low risk roups include antenatal mothers.

entinel Surveillance

TD Clinic Surveillance data from angalore for 1999 yielded a 6.79% sero-prevalence

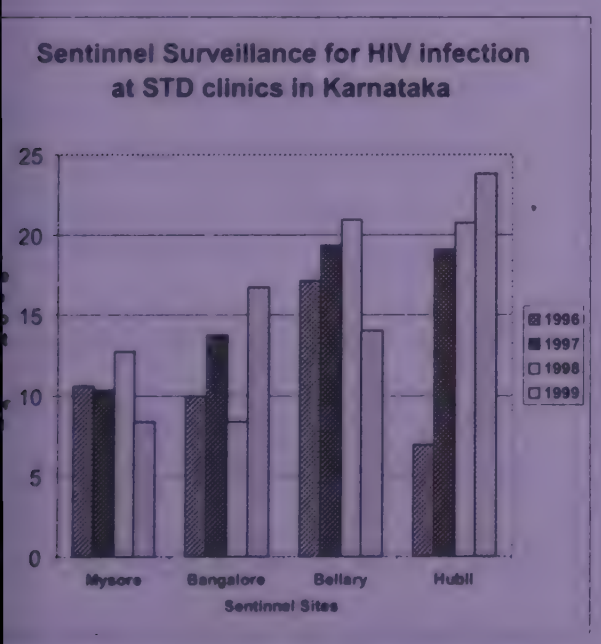


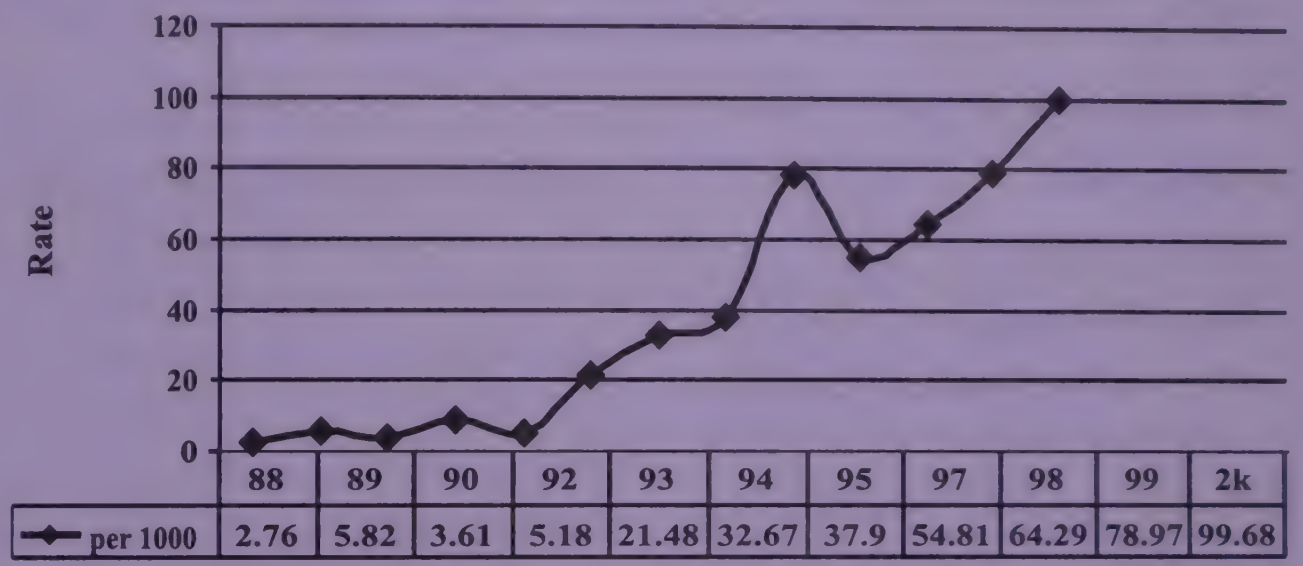
Fig. 1 . Sentinel Surveillance for HIV Infection at STD Clinics in Karnataka

(State average 15.76 %). There is a perceptible increase in sero-prevalence from 1996 to 1999

Sentinel Surveillance at Antenatal Clinics from Bangalore yielded a sero-prevalence of 0.25% (State average of 1.025%).

Voluntary Blood Testing Centres

Until 1998, there were 3 such centres. This has increased to 5 in 2000. The rate of growth of sero-positivity has been from 2.76 per 1000 to 99.68 per 1000 (fig.2).



RATE OF GROWTH OF SEROPOSITIVITY (VBTCs)

Fig. 2 Rate of growth in Sero positivity(VBTC's)

A compilation of sero-surveillance from July 1987-June 2000 of HIV cases in Karnataka reports a cumulative total HIV+ of 7051, a sero-positivity rate of 16.51 Of these 490 have been from other States and 15 were foreigners. 2596 of the total 7051 cases are from Bangalore Urban and 172 from Bangalore Rural. While heterosexual promiscuity has been recorded as a common correlate of sero-positivity (in 37.23%) IV drug use has been recorded in only 4 cases 0.06% (KSAPS 2000).

Other studies on HIV sero-positivity indicate that alcoholism is found in more than 2/3 of sero-positives. Alcohol and sexual behaviour are related in multiple complex ways (Chandra 1996).

Table 2. HIV+, AIDS cases and Deaths due to AIDS in Bangalore and Karnataka

Division	1987 to June 2000			July 2000			Cumulative
	HIV+	AIDS cases	Death due to AIDS	HIV+	AIDS cases	Death due to AIDS	
Bangalore (Urban)	2596	98	28	50	2	0	2646
Bangalore (Rural)	172	9	4	2	0	0	174
Karnataka	6355	489	89	185	44	1	6540
Other States	490	43	9	6	2	0	496
Foreigners	15	4	4	0	0	0	15
TOTAL	6860	536	102	191	46	1	7051

2.8. Responses to the problem of HIV/AIDS

AIDS prevention and control activities in the State were initiated under the Technical guidance of the Indian Council of Medical Research in 1987 and an AIDS surveillance centre was established at the Bangalore Medical College. The State AIDS Cell was established in the Directorate of Health and Family Welfare Services in 1992. The World Bank assisted Phase 1 project (Strategic Plan for Prevention and Control of AIDS in India) was implemented with support from the National AIDS Control Organisation (NACO) between 1992-98. (KSAPS 2000).

NACO has developed testing policies as per international standards. These include mandatory testing- that should not be carried out except for blood donations and organ donations; Voluntary Confirmatory Testing that is encouraged; Surveillance Testing for surveillance and for research purposes, for which unlinked anonymous testing is recommended. Pre and Post-test counselling is to be done with every testing. The NACO has also developed guidelines for syndromic management of HIV/AIDS

In 1999, Family Health Awareness Programmes were started at the Primary Health Centres every six months for a one week duration. During this free medication is provided. There have also been programmes for training General Practitioners in syndromic management.

There is a very active NGO presence in HIV/ AIDS prevention and intervention programmes. NGOs, doctors, and the State AIDS Society have come together to constitute an informal forum called the AIDS Forum of Karnataka to facilitate monitoring of intervention activities.

Summary 2 Overview of National AIDS Control Program Activities in Karnataka

1. 10 zonal blood testing centres established. 51 blood banks modernised
2. Sentinel surveillance being carried out in 7 STD clinics, 1 antenatal clinic and subsequently at 5 more sentinel sites
3. Active NGO interventions among commercial sex workers, Persons living with HIV and AIDS, antenatal counselling, truckers program etc.
4. Strengthening of STD clinics
5. Information, education, communication (IEC) activities
6. Regular training programs
7. Setting up pf a State AIDS Prevention Society

Table 3. Organisations working in the Area of HIV/AIDS in Bangalore

Organisation	Services
AIDS Forum – Karnataka	Counselling, care, support, reproductive health, education and awareness
Samraksha	Residential care, training in care and support, occupational therapy
Bangalore Medical Service Trust	Care and support
Snehadan	Testing and counselling, STD treatment and school programme, residential care
Freedom Foundation	Residential care
Network of Positive People	Support groups, information, resource linking
Jagriti	High risk group education and intervention

3. Summary Of Previous Studies On Drug Abuse In Bangalore

Several observations can be made on the drug scene in Bangalore over the last 2 decades, through various case reports, clinical and epidemiological studies. A case report of petrol addiction in a 17 year old boy presenting with psychotic features was reported by Mahal and Nair (1978). Lorazepam dependence was reported in 1984 (Khanna et al). A case of Ketamine dependence was reported by Singh and Murthy (2001).

In a study of 993 students of Agricultural University in 1980, Bhadra et al reported use of drugs and alcohol in 19%, and alcohol use in 35% of the students. A study done a couple of years later among 389 college students revealed similar findings - 48.8% had never used drugs, 13.6% used both alcohol and drugs, 1.5% only drugs and 36% alcohol (Krishnamurthy and Kapur 1981). In a multi-centred study in 1987 which included Bangalore (Ray and Beig) 23.5% of male students and 5.3% of female students reported alcohol use 'currently'. One percent of males and 0.3% of females reported heroin use and 1.3% males and 0.4% females reported cannabis use (all 'current use').

3.1. Study of 1989

In a study Patterns and Problems of non-alcoholic Drug Dependence in Karnataka sponsored by the Department of Excise and carried out by NIMHANS (Channabasavanna et al 1989), 5573 students and 4007 adults in the general population from all over Karnataka were assessed for substance use. 15.9% of students from Bangalore reported lifetime use of any intoxicant apart from alcohol. 9.5% reported current use of intoxicants.

Table 4. Study of 1989 – Substance Use Patterns reported from Bangalore

	Students (N= 881)			General Population (N=799)		
	All (N=881)	Males (N=580)	Females (N=301)	All (N=799)	Males (N=401)	Females (N=398)
Current smoking	215(24.4%)			32%		
Lifetime history of alcohol use	380(43.1%)	52.9%	24.2%	37.5%	65.8%	9%
Current alcohol use	374(42.5%)			34%		
Lifetime other drug use	140(15.9%)	18.4%	10.9%	10.4%	18.2%	2.5%
Current other drug use	84(9.5%)	12.4%	4.3%	3.7%	6.5%	1%

3.2. Study of 1991

A project, Culture and Drug Abuse in Asian Settings – A Research for Action, was initiated in 1991 by the International Federation of Catholic Universities (IFCU)/ International Group of Research on Drug Abuse -GRITO) and funded by the Commission of European Communities. It was carried out in Bangalore by the St. John's Medical College Hospital (Machado 1994). The main objectives of this study were to understand the historical, social and cultural factors related to drug use and abuse in the region, to monitor trends in drug abuse, to determine the epidemiological and social cultural characteristics of drug addicts and to identify and evaluate the existing drug reduction programmes. The study used a multidisciplinary approach, with information obtained from varied and diverse sources. Techniques employed included a historical and socio-cultural study, collation of existing material, interviews with addicts, analysis of case histories, interviews with key persons. A house-to-house survey was also carried out in a slum and urban locality in Bangalore, and a nearby rural area.

Table 5. Summary of Household Survey (IFCU-GRITO) 1994

Drug Type	RURAL (N=963)	SLUM (N=254)	URBAN (N= 183)
Cannabis			
Ever Use	3.2%	3.2%	2.7%
Use Last Year	3.5%	2.9%	1.1%
Opium			
Ever Use	0.6%	-	-
Use Last Year	0.3%	-	-
Heroin			
Ever Use	-	0.8%	1.6%
Use Last Year	-	0.4%	0.6%
Tranquillisers			
Ever Use	-	0.8%	1.1%
Use Last Year	-	0.4%	0.6%
Inhalants			
Ever Use	-	1.6%	-
Use Last Year			
Present Use	3.3%	3.6%	2.2%

The IFCU- GRITO project also analysed treatment centre data between1972 to March 1993 from centres in Bangalore. A total of 722 records revealed the following:

- Until the mid eighties, apart from occasional reports of barbiturates and cannabis, other drug use was not reported
- Subsequently, multiple drug use was recorded (46% of cases reported poly drug use), and cannabis use was the next frequent (26% of cases)
- Heroin use was first recorded in 1982
- Report of use of various opiates increased from 1987 and peaked in 1992
- Most common opiate of abuse was buprenorphine (tidigesic).

Most drug users reported from treatment centres were males (90%) below 35 years (85%) and literate (98%).

3.3. Drug Use in Slums – RAS 1996

A rapid assessment survey of 160 respondents (mean age 39 years) identified through 68 community key informants was conducted in 2 slum areas in and around Bangalore.

Table 6. Drugs Abuse (RAS Study in Slums 1996)

Drug	Lifetime Use	Current use as Primary Drug	Current use as Secondary Drug
Alcohol	93.7%	92%	1.1%
Opioids Raw opium	2.3%	1.1%	-
Heroin	1.1%	1.1%	-
Other opiates	1.1%	1.1%	0.6%
Cough Syrup	6.3%	2.4%	0.6%

3.4. De-Addiction Network Data Bank (1995-1997)

In October 1995, the De-addiction Network (a network of organisations working in substance abuse management in and around Bangalore) initiated a Data Bank to get an understanding of the problems related to alcohol and other drugs. All the network organisations were requested to fill the Addiction Patient Evaluation Exchange (APEX) form. The objective was to collect data about the clients utilising treatment services in the city, and details of the nature of services offered to them. An initial report of 1680 cases was recorded over a year (De-Addiction Quarterly 1997). Alcohol related problems formed 97% of the referrals. Apart from alcohol, other drug abuse, which led to treatment seeking, was cannabis in 3.7%, opioids in 3.5% and benzodiazepines in 1.8%.

3.5. Street Children Study 1998

Bangalore is estimated to have about 1,00,000 street children (DAPP Report 1988). A forum of 12 NGOs, the Bangalore NGO forum for Street and Working Children was formed in 1988. This forum became very concerned about drug abuse among street children in 1996, following the death of six street children from drug abuse. It therefore initiated a survey to assess the magnitude of the problem, in collaboration with NIMHANS. An initial qualitative assessment of the problem of drug abuse in street children was undertaken through key informant interviews. This was followed by administration of a questionnaire addressing issues of drug use and sexual behaviour to street children through trained street education.

Among 281 street children interviewed, 197 reported substance use, commonly inhalants (48%), alcohol (42%) and cannabis (16%). Inhalants commonly included 'erasex' or typewriter thinner and petrol. Fifty one percent of this group reported being sexually active, and those with high risk sexual behaviour tended to have more drug use and a greater number of drug using peers.

3.6. Summary of earlier studies on Drug Use in Bangalore

Some of the major findings of earlier studies indicate that:

- Alcohol is the primary substance of abuse, followed by cannabis and opioids.
- While barbiturates and cannabis were the commonest drugs of abuse in the 80's there has been a switch to heroin in the late '80s and early '90s.
- Peak of opiate use appears to have been in '92-'93.
- Poly drug use has been extremely common over the years, including cannabis and sedative/hypnotics, especially benzodiazepines.
- Inhalant abuse is extremely common in street children.
- More than half the street children are sexually active.
- In slum dwellers, after alcohol, cannabis is the next common drug.
- The most recent data bank findings appear to suggest a slight increase in opiate use.
- In treatment centres admissions, after alcohol, the primary drug reported is the opioids category, followed by cannabis. Inhalants hardly figured as the primary drug of abuse among the inpatient admissions.

4. Current Trends: Rapid Assessment Survey (RAS) of Drug Abuse in Bangalore

4.1. Objectives of RAS

The broad objective of the RAS was to understand the trends and patterns of drug use in Bangalore City and to get a clear perspective about what is to be done in demand reduction programmes. Some of the specific objectives included study of:

1. Trends and patterns of drug use
2. Profiles of drug users
3. Approximate number of drug users in the city
4. Law enforcement scene, treatment resources and prevention initiatives in Bangalore city

4.2. Methods

The Rapid Situation Assessment (RSA) was the methodology adopted to study the drug abuse situation in Bangalore City. The National Institute of Mental Health and Neurosciences (NIMHANS) undertook the assessment for the city.

4.3. Rapid Situation Assessment – A Review

Rapid Situation Assessment refers to a methodology that uses a combination of qualitative and quantitative data collection techniques. It draws from a variety of data sources to arrive at an understanding of the nature, extent and trends pertaining to the problem, the structures and services that exist, their adequacy to address such problems, and develop ways to respond and deal with them. The RSA is a quick and less expensive method to get an accurate perception of the drug abuse problem. This methodology has been promoted by and implemented within the United Nations Drug Control Programme (UNDCP), in particular in developing countries where there is little or inadequate data and infrastructure to allow a comprehensive picture.

4.4. Data Collection and Training

RSA uses both secondary data (drug seizure data, treatment referral data, drug related physical problems) as well as primary data obtained through key informant interviews, focus groups and direct interviews of drug users both in the community, in treatment or in police custody.

As per the RSA methodology a core team was established and trained. The team consisted of 3 consultant psychiatrists from the De-addiction Centre and 7 project staff appointed specifically for the project. The project staff consisted of a qualified psychiatrist as a supervisor, another psychiatrist and psychologist as junior supervisors and four field staff. Ex-drug users were also recruited in specific areas to facilitate identification of key informants and drug users.

A 1-day workshop involving organisations concerned with supply and demand reduction on Drug Abuse Epidemiology was held in Bangalore. The objectives of the RSA were presented and suggestions were obtained on the procedural aspects of the RSA, including ways of recruiting users, location of interviews, issues of confidentiality. The co-operation of the participating organisations as well as some of the ex-users was requested. A plan of action was evolved and a decision taken that there would be a dissemination workshop at the end of the project.

Summary 3. Process of Data Collection through Individual Interviews

- Patients at NIMHANS introduced the team to their drug using friends who in turn got us in touch with further users.
- At AA/NA meetings, some of the drug users were able to provide introduction to other drug users.
- Friends and teachers of the research team helped identify and interview drug users in colleges
- Many ex-users were extremely helpful in providing an introduction to drug users.
- Various NGO staff helped especially in reaching special populations such as street children and commercial sex workers
- Drug users were directly approached in sites such as parks.

The field staff was trained in the basic aspects related to drug abuse, including common drugs of abuse, terminology, interviewing skills and RSA methodology. Mock interviews were carried out on patients admitted to the De-Addiction Centre. The junior supervisor supervised the data collection while the other supervisor carried out data entry and verification. The supervisors carried out the key informant interviews and the focus group, with the assistance of the field staff. The field staff and one of the supervisors carried out the drug abuser interviews. The staff maintained field notes.

4.5. Sampling for Quantitative Survey

A snow balling method was used wherein identified drug users lead the interviewers to more drug users in the community. Key informants were also vital in providing introduction to current users. A structured survey instrument was used for current drug users. This covers socio-demographic details, patterns of drug use, associated physical problems, treatment utilisation, injecting behaviour, sexual behaviour in general and association with drug use, perception of treatment need.

Altogether, 275 drug users were contacted. The criteria for selection was use of a drug other than alcohol in the last 6 months. Persons using only nicotine were excluded.

4.6. Qualitative Data

Qualitative Data was obtained through

- In-depth or unstructured interviews
- Interviews with key informants
- Focus Group Discussions
- Mapping
- Ethnographic observations

Interviews with Drug Users

In-depth Interviews

In-depth interviews are useful in understanding the chronology of events in the drug user's life, and personal, interpersonal and social aspects of drug use. They help to understand possible initiating and pathoplastic factors that influence drug use. Persons consuming different drugs were interviewed to obtain a better understanding of their life situations and the influence of drugs on various aspects of their lives. Twelve such interviews were conducted

Interviews with Key Informants

Key informants are those individuals who by virtue of their role in the community can potentially

provide relevant information. Different categories of key informants can provide valuable information about the drug problem, the users, legal aspects, availability and accessibility of prevention and treatment programmes or attitudes towards certain programmes.

In this study, 36 key informants were selected based on their knowledge and experience of drug use and drug users. Secondary data was collected with respect of the last 5 years. The key informants belonged to 3 categories.

Table 7. Categories of Key Informants

Category of key informant	Number
Law Enforcement (NCB, DRI, CCB, Excise, Prison, Drug Controller)	16
Treating Professionals (5 psychiatrists, 3 NGOs running treatment centres, 3 ex-users, 2 users	13
Pharmacies	6
Media	1
Total	36

Category K1 included personnel from the Law Enforcement, Welfare Department, Health Department, AIDS Control Board, Prison Officials, and Policy Makers.

Category K2 included Treatment Centre Personnel, NGO personnel, Government Personnel, Out Reach Program personnel, Media personnel, and Pharmacies.

Category K3 consisted of key informants from the public. Ex drug users, commercial sex workers, street children, drug dealers, and police officers.

The key informant interviews and observations give a general overview of their perceptions on the drug scenario in Bangalore.

Focus Groups

Focus groups have an essential role in RSA's as potential sources of information. This consists of a discussion with groups of 6-10 people with common experiences. Focus groups can generate descriptive data on individual and group perceptions on drug abuse practices and contextual factors. They can help in assessing the extent of the problem; the effectiveness of intervention programmes, or to validate findings from other data sources.

Focus groups were conducted with street children, injecting users, and with drug users in prison. The focus groups with street children were carried out with the help of NGOs working with street children. Prisoners were approached through the jail superintendent. Focus groups were audio taped.

Mapping

This allows a geographical representation of many varieties of information. Such maps help to make systematic ethnographic observations, select key informants from a number of locations with similar or different characteristics, target sampling strategies to recruit participants for research or organise interventions and services for the target group.

Ethnographic observations

Through the contacts established during the pre-RSA workshop and through gatekeepers, the field staff made direct observations of drug using sites.

4.7. Secondary Data

Secondary Data consists of existing statistical and documentary information that has already been collected and is readily available in various formats. Such data can help to contextualise the RSA and provide useful insights into patterns of drug use, consequences associated with drug use, emerging trends in drug use and so on. Secondary data sources include:

- Policy documents in respect of drug abuse prevention and treatment
- Official statistical data
- Reports by different organisations, including non-governmental organisations.

- Research reports
- Hospital records
- Drug treatment centre data
- Surveillance data (e.g. HIV/ AIDS, Hepatitis data)
- Media reports

Data from 13 Centres in the City was collected from the period June 1999 to June 2000, with respect to patients admitted with primary drug abuse other than alcohol. The case records of the patients maintained at each centre were accessed and analysed. It must be emphasised that alcohol related problems form more than 90% of admissions to these centres (De-Addiction Network Data Bank).

4.8. Process of Estimation

The prescribed methodology for the RAS by the UNDCP was followed. This involved summation of the number of users currently using the specified drug in the community. The users who reported having been in residential/in-patient treatment were excluded. Number of current users of the specific drug in treatment centres during the past year was collected. This was multiplied by the multiplier (number of users identified in the community to give a rough number of the drug users in the city).

4.9. Problems and Barriers in Methods Used

Drug abuse is an illegal activity and most users are aware of it. Therefore, it was not easy to access this largely hidden population. First, they were hesitant to talk to apparent strangers. The fear was largely about information reaching the police, family members, or identities revealed in the press. Secondly, those who were not motivated to seek help for drug use were also disinterested in discussing their drug use. Sometimes we met respondents who were under the influence of drugs and required re-interviewing to obtain reliable information. Sometimes the interview took hours, and in the meantime, the respondent would lose interest, stop the interview, and walk away. It was not easy to access the same individual for another session.

Although we used snowballing technique to choose drug users, in many instances the first user refused to give the name of other users. This was probably related to their apprehensions about legal problems. Despite many ex-users being initially enthusiastic to introduce potential respondents, they found it an arduous task. Credibility was an important issue, as in case the user was arrested, the key informant would be held responsible.

Summary 4. Approaches Used

- Key informant interviews
- Focus Groups
- Direct observation
- In-depth unstructured interviews
- Structured interview with users
- Secondary data from enforcement agencies and treatment centres

On occasion, the field staff was warned about possible attacks by drug users especially during observations of drug use. This was especially when any police visited these areas following the interviews.

On one occasion, one of the field staff was apprehended by the police for lurking around in the Majestic area when he was seen talking to some women, on the suspicion of being a procurer! A lengthy explanation and his identification card saved him.

Focus groups in the Central Prison were also very difficult, with the respondents fearing that whatever was discussed could interfere with their bail procedures. Confidentiality had to repeatedly be ensured.

5. Results

The data obtained from the study, both quantitative and qualitative, is discussed in this section. A rough estimation of the likely opiate users was made by taking the number of current users of all opioid substances from the community survey, excluding the cases that had been in a treatment centre during the previous year. The number of opiate users among treatment centre admissions was also calculated. This was multiplied by the multiplier (number in the community without recent treatment) to give the approximate number of opiate users in the city. Thus from the community interviews, total current users of opiates not having received inpatient/residential treatment for their drug problems numbered 55. Current opiate users in the treatment centres totalled 149. The product (55X149) = 8195, which is a rough estimate in the city of Bangalore.

A similar exercise was done for cannabis. With 231 cannabis users interviewed in the community and 121 persons admitted at treatment centres abusing cannabis, a rough estimate of cannabis users in the city is likely to be 27,951.

It is not possible to calculate the number of inhalant users in the city using this method, as inhalant users hardly reach treatment facilities. Given that the estimated population of street children in Bangalore is 1,00,0000 and that about 25% use inhalants (extrapolated from the study of street children), there are likely to be at least 25,000 inhalant users in Bangalore.

5.1. Profile of Drug users

275 respondents were interviewed in the community during the Rapid Assessment Survey. It was subsequently discovered that one respondent was not a resident of Bangalore, and hence the results have been calculated for 274 respondents.

The records of the 257 patients admitted over a year (between June 1999 and June 2000) for drug abuse other than alcohol were analysed. However, some of the information was not recorded in the case files. The number for which information is available is specified and percentages calculated are valid percentages. The socio-demographic characteristics of that group are outlined in table 8.

Summary 5 . Rough Estimate of Drug Users in Bangalore

Opiates	8195
Cannabis	27951
Inhalant	25,000

Centerwise distribution of drug user admissions (apart from alcohol)

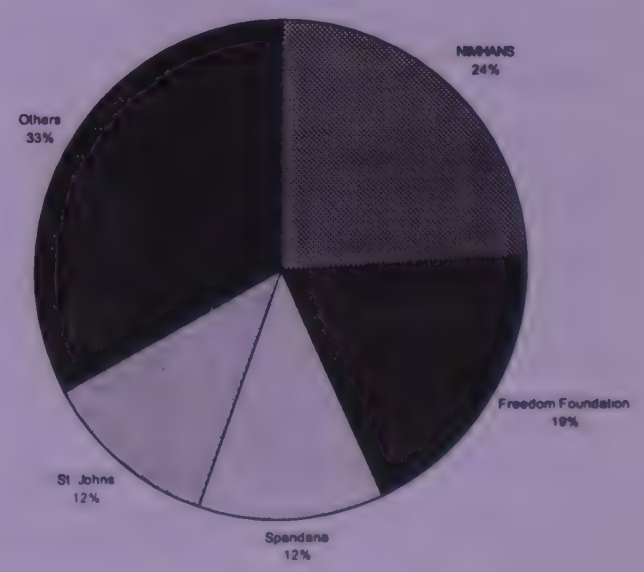
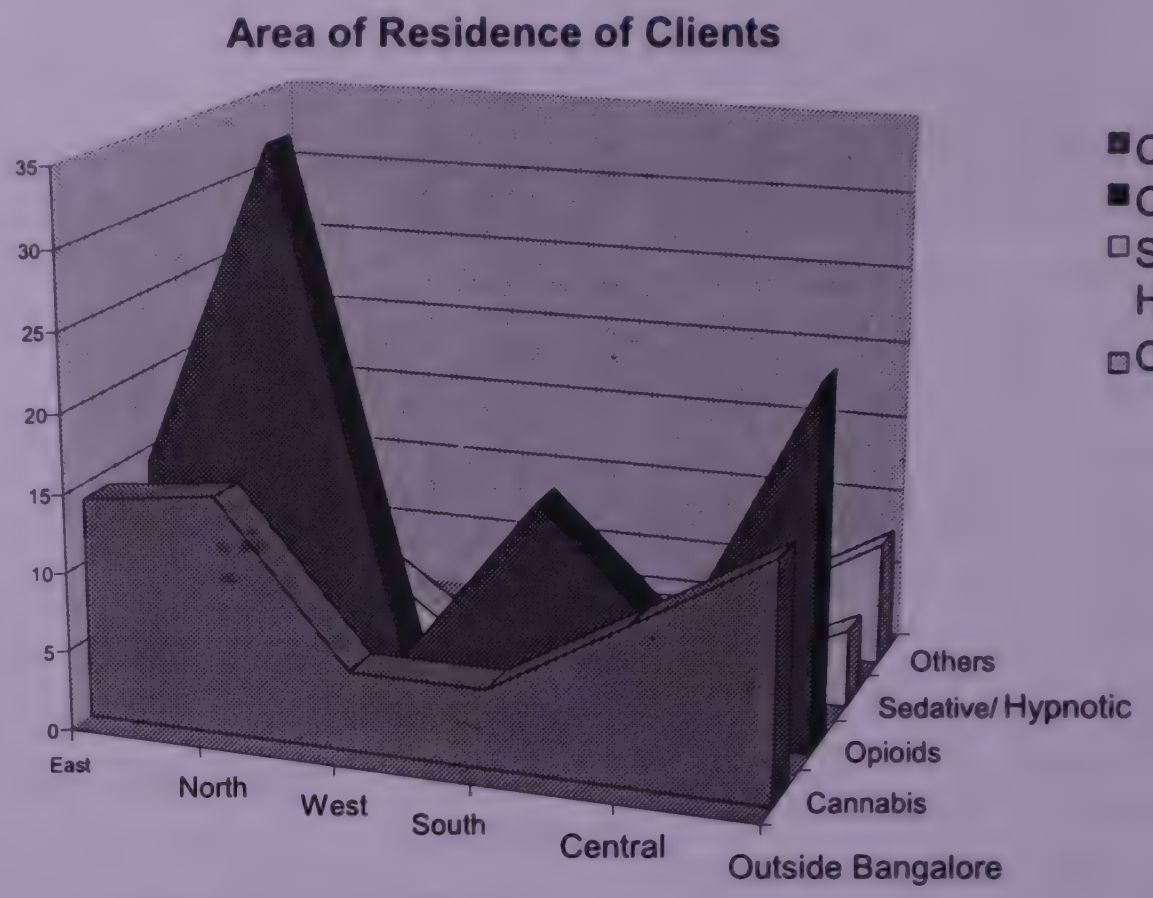


Fig. 3. Centre- Wise Distribution of Drug Users

Excluding admissions for primarily alcohol related problems, a total of 257 patients were admitted over a year at the treatment centres in Bangalore.

NIMHANS had 24% of the city's drug related admissions, followed by Freedom Foundation with 19%. Thirty three percent of the city's drug related admissions were distributed across 9 centres/ hospitals (CARE, Divyasri, CAIM, HAL Hospital, KIMS, Manipal Hospital, Victoria and MS Ramiah hospitals) (fig. 3).

Fig.4. Area of Residence



Age and Gender

Mean age of the community respondents was 29(±9) years (range 9 to 56 years). 263 (95.6%) of the respondents were male and 12 (4.4%) female. Nineteen percent (52) of the respondents were homeless.

Among those at the treatment centres, the mean age was 38.7 (± 9.2) years. Two hundred and forty three (95%) were male and 14 (5%) females.

Area of Residence:

Among those interviewed, 106 (39%) were from East Bangalore, 60 (22%) from South Bangalore, 47 (17 %) from Central Bangalore, 44 (16%) from West Bangalore and 17 (6%) from North Bangalore. The area allocation was made from the telecom division as indicated in the local telephone directory.

This information was available in 202 patients of the treatment centres. As is apparent in the accompanying figure, the most frequent admission was for opioid abuse, followed by cannabis. A majority of the opioid and cannabis users lived in north Bangalore. (fig.4)

Some of the recordings made during the focus group discussion provide glimpses into the locations of drug use in Bangalore.

With opiates, group use is restricted to a few close friends. Earlier large groups of 10-12 were common and 'addas' were places where the users used to gather. Dhabás were also well known sites for sale and use. Now the use largely occurs in houses, a few unused buildings and rarely in parks, because of fear of apprehension. Sale of illicit opiates is also an extremely quick and slick operation. The exchange of drugs for money appears to occur in parking lots, cinema theatres, railway stations and less often from innocuous kiosks or pan shops.

Cannabis use is commonly seen in some of the parks in Bangalore. Even with cannabis, the selling occurs very quickly, but people linger on and smoke. The

y market, slums, temples, and aveyards are common sites for ople to aggregate and smoke.

hnographic observations with gard to sexual activity suggest at commercial sexual activity is t confined to any specific 'red ht area' in Bangalore. Such tivity occurs in little lodges in any busy parts of the city uch as the Majestic area here the bus stand and railway ation are located), or from uses in slums.

ducational Status

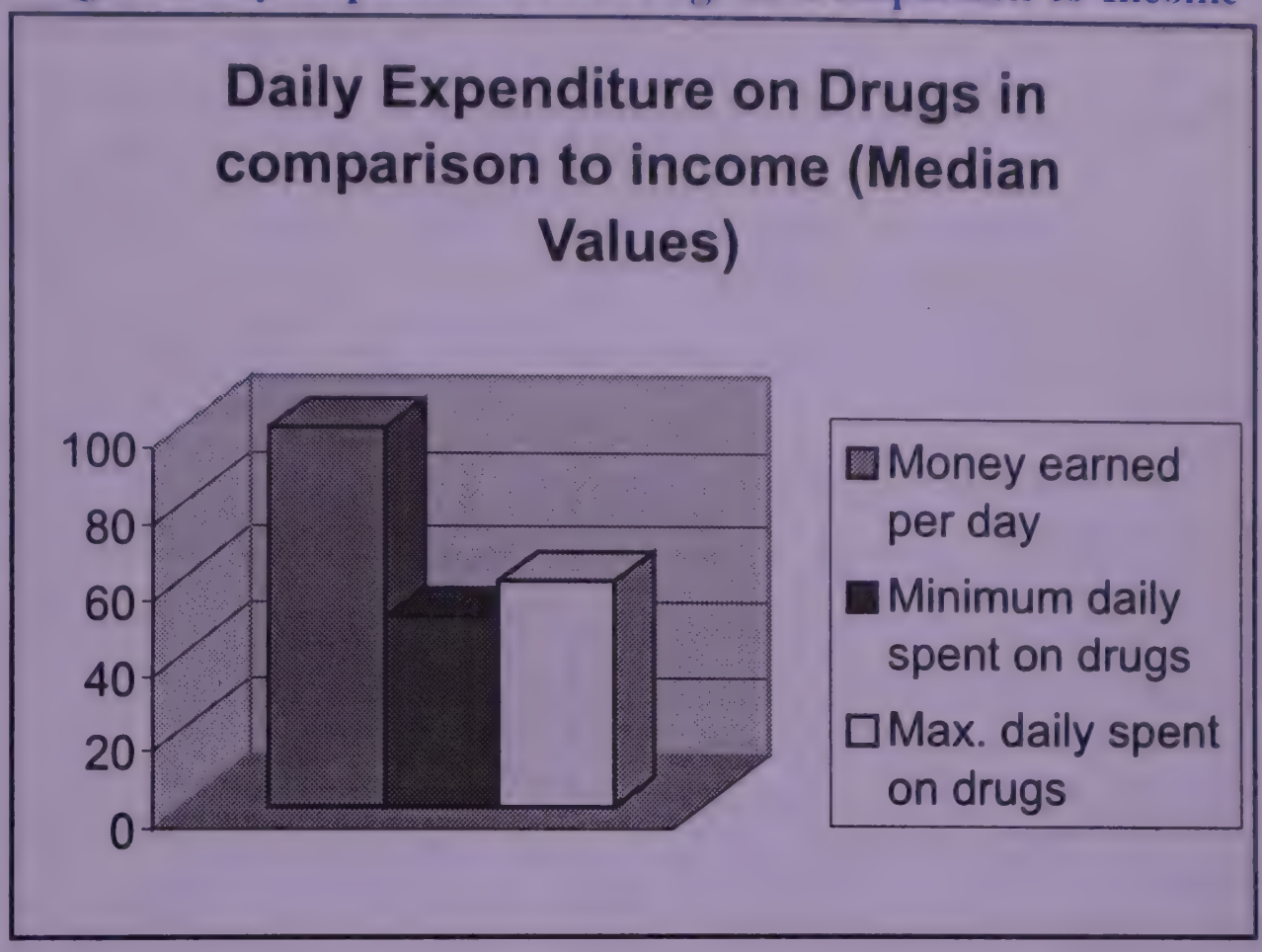
3(32%) of those interviewed ere illiterate. While 44 (16%) d completed primary school, (34.2%) of respondents had ached secondary school and (4.1%) studied up to higher condary. 11 (4%) were college opouts and 24 (8.8%) had mpleted graduation.

the case of those admitted to eatment centres, information as available on 241 persons. Of ese 4 (2%) were illiterate while (8%) had completed primary hool. 68 (28%) had reached condary school and 56 (23%) gher secondary. 94 (39%) had en to college.

ccupational Status

nong those directly interviewed, 9 (94.2%) respondents held a at the time of the interview.

Fig. 5. Daily Expenditure on Drugs in Comparison to Income



Of these 108 (41.7%) worked as daily wage labourers and 69 (26.6%) were skilled workers. 28 (10.8%) were in small businesses, 29 (11.2%) in the private sector, and 5 each (1.9%) in government jobs or professional jobs (1.9%). Another 5(1.9%) respondents worked as commercial sex workers.

The median daily earning for the group (data available for 254) was Rs. 157 (± 175)(range Rs 10 to Rs.1750). Median monthly earning was Rs 4064 (277) (range Rs 350-Rs 35,000). To calculate the money spent by these people on drugs, median values were used rather than means (because of the wide standard deviation in values).

The minimum amount spent per day on drugs was Rs. 50 (range 0-Rs 1500) and maximum spent per day was Rs. 60 (range 0 – Rs. 2000) (fig 5).

Information about 249 persons who went to treatment centers was available. Of these 102 (41%) had regular jobs while 77 (315) were casual labourers)

Marital Status

Among those interviewed, 150 respondents (54.5%) were single, 121 (44%) married and the others (1.5%) divorced or separated. The data gathered from treatment centres revealed that 73 persons (29%) were living with their spouses while 109 (43%) were with their parental families.

Table 8: Treatment Centre Admissions Data: Socio-demographics

	Number (N)	Number of observations (N)	Valid Percentage
Educational status		241	
Illiterate	04		02
Primary	19		08
Secondary	68		28
Higher Secondary	56		23
College or more	94		39
Employment status		249	
Regular employment	102		41
Casual work	77		31
Current living status		242	
With parental family	109		43
With partner	73		29
Alone	37		14
With friends	05		02
In institution	18		07
Whether currently living with drug abusers		200	
Yes	76		38
No	124		62
Source of referral		236	
Self/family/friend	185		78
GP	11		05
Other treatment centres	05		02
Hospitals	09		04
Social services	02		01
Others	24		10

5.2. Initiation to Drugs

Among those interviewed, it was found that the mean age of first use of any drug apart from tobacco was 17.1 (4.6) years with an age range of 6-33 years at onset of drug use.

It was also found that alcohol was the first drug of initiation in 139 respondents (50.5%), followed by cannabis in 91 (33.1%) of the respondents. Thirty two (11.6%) had initiated drug use with inhalants while only 12 (4.4%) had initiated with opioids

While 145 (52.7%) had initiated with oral consumption (mostly all alcohol), 91(33.1%) had begun with smoking the drug. Two respondents (0.7%) had started with injections and 5 (1.8%) with chasing. The 32 users of inhalants (11.6%) had all begun with inhalation of the drug. (Table 9)

The most common reason stated by key informants was peer influence. The other reasons stated were mental tension, social isolation, urbanisation, people having more money, less family bonding, more flexible attitude of family members, nuclear double income families etc.

Another important reason stated by key informants particularly among tablet users is that tablets are freely available, commonly written by general practitioners and easily available at the counter without prescriptions, or without dated prescriptions. The user normally comes to hear about drugs from drug using friends and either because of their pressure or due to curiosity starts using it. On the first occasion, the friend usually offers the drug. Gradually the user begins to buy it himself. Acute stress facilitates drug use. The initial and subsequent use is at invariably hidden places and the parents do not discover such use for a long time.

Similarly, a majority of those interviewed said that they had initiated substance use outside home (66.3%). Whether outside the home, at home, or in the workplace or on social occasions, a majority 202 (73.5%) had initiated substance use in a peer group.

04 (37.8%) respondents cited eer influence as the most ommon reason for initiation. leasure or curiosity was the rimary reason in 88 espondents (32%). A small umber (28, 10.2%) had initiated ubstance use because of financial problems or because of worry (24, 8.7%). Other reasons (parental model of use, failure in a love affair, health reasons, and enhanced performance) were cited in 23 (8.3%). 7 (2.5%) were unable to give any reason for drug initiation and 1 respondent (0.4%) had started taking drugs with the feeling that 'there is nothing wrong' with it. 70 (32%) of 226 respondents reported a history of drug taking along with a member of the opposite sex

Table 9

	Number (N)	Percentage (%)
Drug of Initiation		
Alcohol	139	50.5
Cannabis	91	33.1
Inhalants	32	11.6
Raw opium	02	0.7
Other opiates	10	3.6
others	01	0.4
Mode of Initiation		
Oral	145	52.7
Smoking	91	33.1
Inhaling	32	11.6
Chasing	05	1.8
Injecting	02	0.7
Reason for Initiation		
Peer influence	104	37.8
Pleasure/curiosity	88	32.0
Financial Problems	28	10.2
Worry	24	8.7
Others	31	11.2
Location of first use		
At Home	48	17.5
Alone	19	6.9
With friends	25	9.1
With family	04	1.5
Away from Home	182	66.3
Alone	15	5.5
With friends	163	59.3
At Workplace	07	2.5
On social occasions	07	2.5
Cannot remember	31	11.3

5.3. Types of Drugs Used

Key informants from law enforcement agencies in transferable jobs as well as state agencies opined that the drug abuse problems was not of major concern in Bangalore city compared to other parts of the country. Most of them did not find any change in the scene in the last ten years.

Of the 16 law enforcement officials who were among the key informants interviewed, there was unanimity that Ganja (Cannabis) is the commonest drug of abuse followed by brown sugar. Their knowledge about other drugs of abuse was perceived inadequate but four of them mentioned that injection and tablets use was also heard of in Bangalore. Treatment personnel also opined that cannabis was the commonest drug of abuse. One person reported having come across more cough syrup addiction compared to other drugs. His patient population consists of mainly of college

students. Regarding the next drug of choice by people, 6 of them mentioned opiates and 2 tablets.

Ex-drug users also said that cannabis was the predominant drug of choice followed by tablets and brown sugar.

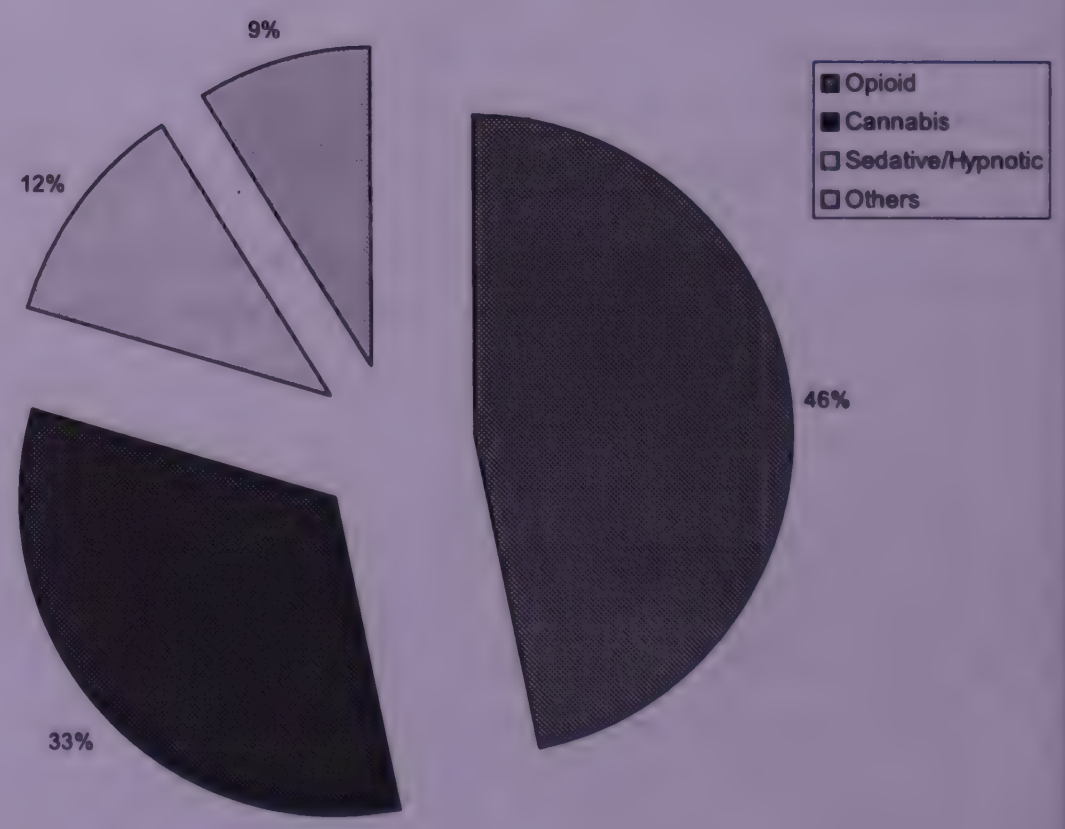
According to most of the key informants, drugs preferred by the youth were cannabis and tablets. Four felt cough syrups were also preferred by youth. Opiate drug use was perceived to be relatively less in comparison to other parts of India. Among the opiates, brown sugar and cough syrup were thought to dominate the scene. They also mentioned that cannabis use is found uniformly across the strata but opiate drug use is confined to middle or upper socio-economic strata. A key informant interview with a head constable of 15 years experience was particularly revealing. He opined that heroin use was more among students, cannabis in the lower socio-economic groups, and whitener and petrol sniffing in slum areas.

As far as over the counter drugs are concerned, they are commonly abused by people, according to the key informants. Tablet use is commonly seen as a part of poly drug abuse. Treatment centre personnel were of the opinion that alcohol use dominated the substance abuse scene. Ninety percent of their inpatients and outpatients are alcohol abusers.

Of the 275 respondents interviewed in the RAS, 212 were currently using alcohol (77.1%), 229 (83.3%) cannabis, 72 (26.2%) opiates, 53 (19.3%) inhalants, 23 (8.4%) sedative/Hypnotics and 5 (1.8%) other drugs. 219 (79.6%) also used tobacco, mainly through smoking (97.7%). Poly drug abuse (excluding nicotine and alcohol was seen in 78 respondents (28.5%). Other drug use included LSD in 7 respondents, cocaine in 3 patients, cactus and coal, mushrooms and snake bite in 1 each.

Among those admitted to treatment centres, a majority were admitted primarily for opioid misuse 120 (46%), followed by cannabis 84 (33%). A smaller number were admitted primarily for sedative/hypnotic abuse (mainly diazepam, nitrazepam and alprazolam) 30(12%). Only 1 patient was admitted primarily for inhalant abuse.

Fig. 6. Primary Drug of Abuse in Admitted Group



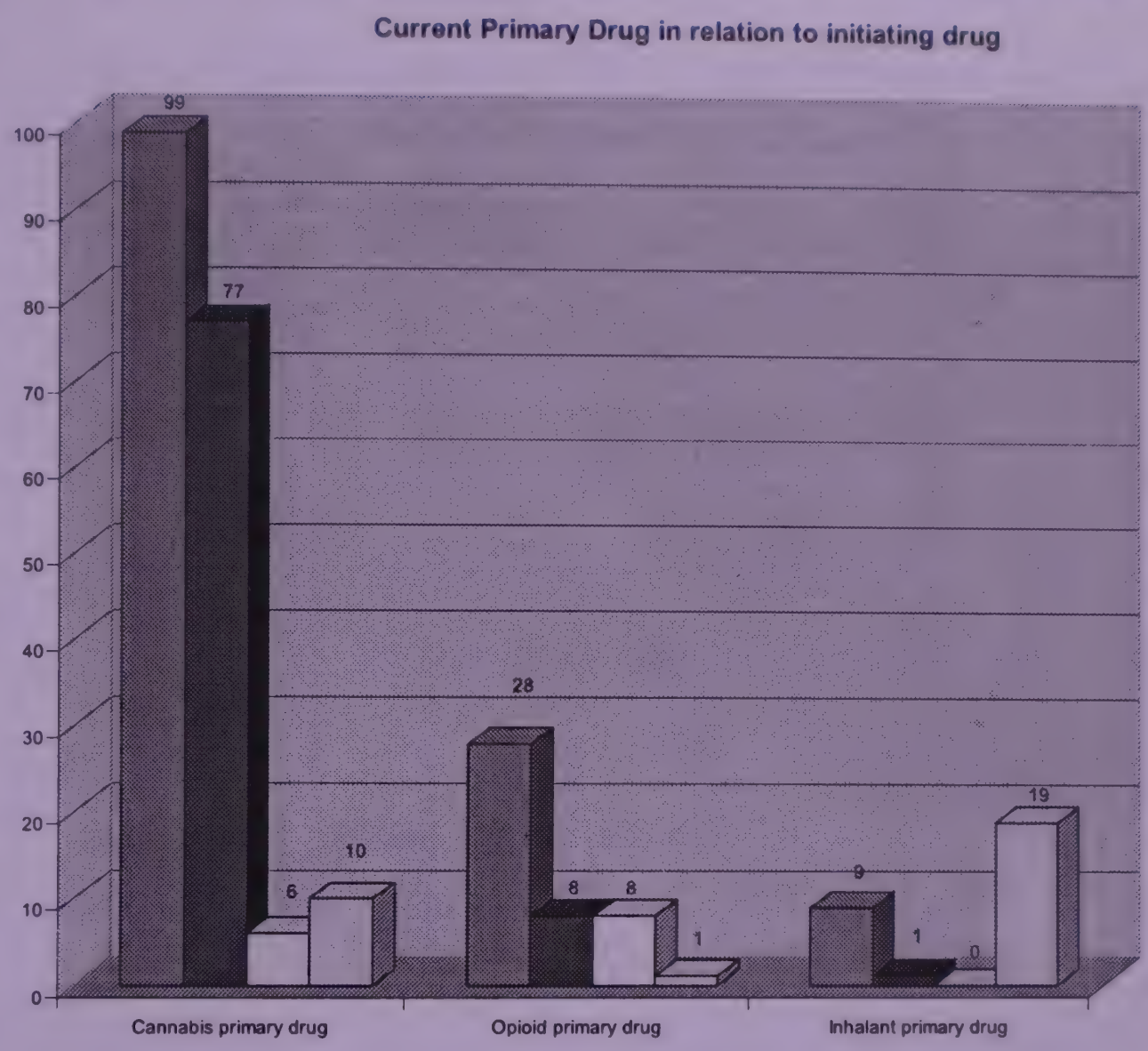
Primary and Secondary Drugs of Abuse and Poly Drug Use

All treatment centre personnel who were among the key informants interviewed reported poly drug use as the commonest pattern of use. The reasons for this recent trend of poly drug they felt could be financial. The rising prices of drugs have made it difficult for users to buy the drug of their choice on a daily basis. In addition, some drugs such as brown sugar are not easily available. People thus use multiple drugs to escape from severe withdrawal symptoms.

Although almost a third of the respondents reported concurrently using more than one drug (apart from alcohol), primary current drug of use (based on which respondents were included in the RAS) was as follows: Cannabis was the primary current drug of abuse in the last one month in 92 (69.8%), Opiates in 48 (17.5%), Inhalants in 29 (10.5%), Alcohol in 5 (1.8%), and others in 1(0.4%). 198 respondents (72%) had used the drug on the day of interview, 50 (18.2%) on the previous day, 9 (3.3%) the day before and 18 (6.5%) more than a week before.

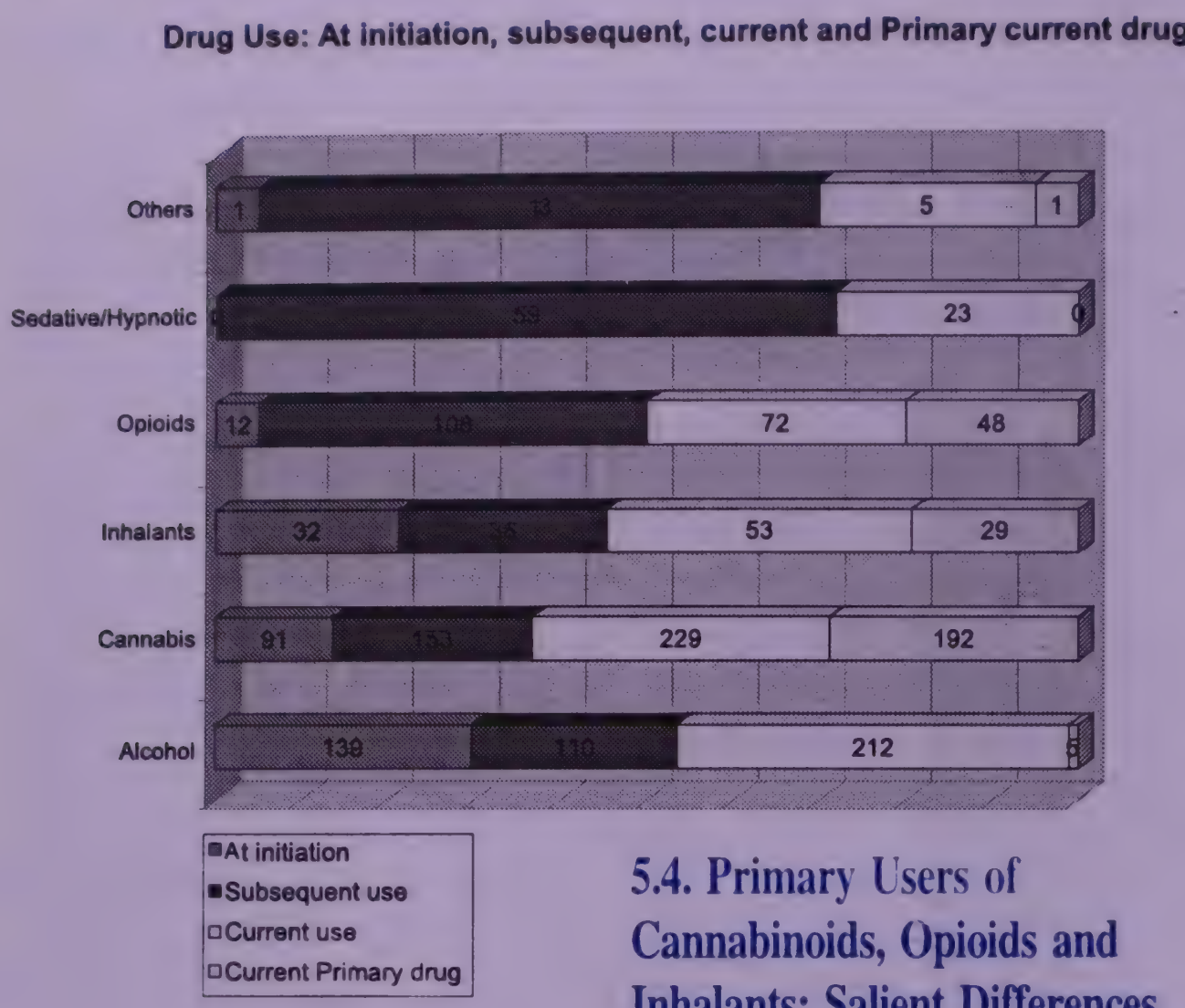
In the category of respondents primarily using opioids (48), 6 used raw opium (12.5%), 33 (69%) heroin or brown sugar, 6 (12.5%) buprenorphine, pentazocine, morphine, pethidine or narcotic analgesics such as spasmoproxyvon, and 3 codeine (6%) in the form of cough syrups.

Fig 7. Current Primary Drug in relation to Initiating Drug



The drugs of initiation and current primary drug are compared in fig 7. Alcohol appears to be the initiating drug for most primary drugs. A substantial number of cannabis users begin their drug careers with cannabis. Inhalant users also start with inhalants commonly at the initiation of their drug career. However, fewer opiate users appear to start with opioids. A substantial number start with alcohol and cannabinoids. Figure 8 traces the drug of choice at initiation, subsequent use and current primary drug use.

Fig. 8 Drug Use at Initiation, Subsequent and Primary Current



5.4. Primary Users of Cannabinoids, Opioids and Inhalants: Salient Differences

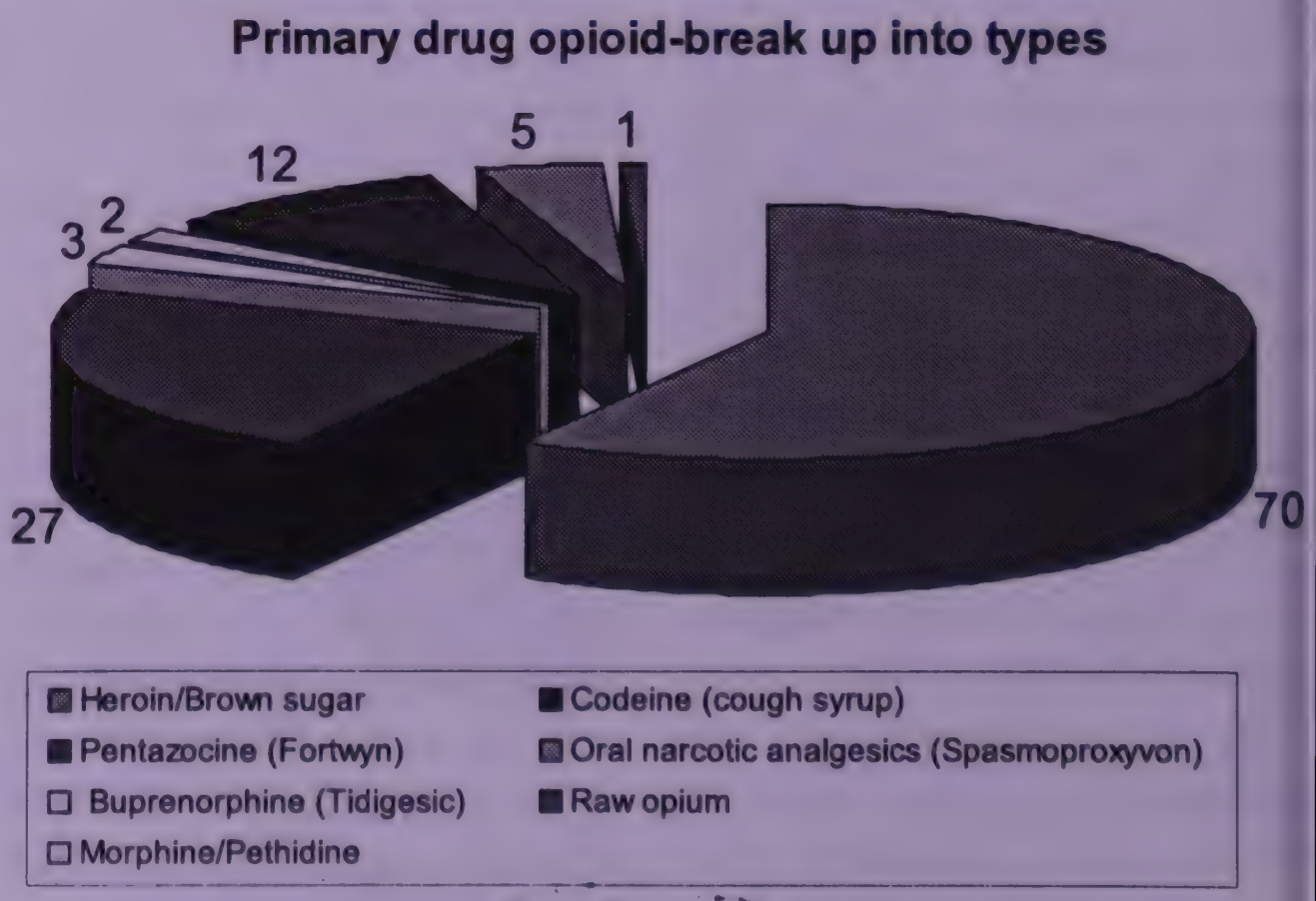
Only a small number of those using cannabis as primary drug (n=200) tended to use other drugs. There were 31 (15.5%) such person's and they predominantly used either inhalants or opioids. On the other hand, of the opioid (as primary drug) users, 22 (49%) used other drugs, predominantly cannabis.

Of the 120 patients admitted to treatment centres, for using opioids as the primary drugs, heroin or brown sugar abuse was the commonest (70, 58%), followed by pentazocine (Fortwin) in 27 (23%). Raw opium hardly figured as a primary drug of abuse. (fig. 9).

Among the 274 people interviewed it was found that inhalant users were significantly younger, more likely to be illiterate. Among inhalant and cannabinoids users, a significantly greater number were homeless compared with the opioid group. Opioid group had a greater income per day. Christians were over-represented in the opioid group, and Muslims in the cannabinoid group. Most cannabionid abusers were Hindus. The 3 groups did not differ significantly on age at first use and marital status

There were significant differences across the three groups with respect to drug of initiation. While all the three groups primarily started with alcohol, a higher number of cannabinoid

Fig 9. Primary Drug Opioid break-up into types



ers were likely to start with nnabinoids, and inhalant users th inhalants (p=.000), whereas iate users were less likely to begin their drug use careers with opioids. (fig 7). Injecting drug use was significantly (p=.000) more common among opioid users (26/49) than cannabinoid users (14/187) or inhalant users (1/29)

Table 10

Drug Type →	Cannabinoids	Opioids	Inhalants	Significance
Mean Age in years	30 (9)	32 (7)	19.2(5.1)	p=.001
Mean Age at first drug use	17.2(4.6)	19(4.5)	13 (3.3)	NS
Mean earning per day	177 (141)	346 (255)	95.4 (112)	p=.001
Number homeless	39/148	01/49	11/29	p=.000
Number married	89/187	20/49	9/29	NS
Religion	(N=185)	(N=48)	(N=29)	P=.002
Hindu	120	26	22	
Muslim	42	05	02	
Christian	22	15	05	
Others	01	02	-	
Number illiterate	66/187	3/49	16/29	p=.000

Table 11. Sexual Exposure, Condom Use and HIV/AIDS Knowledge

	Cannabinoid Users	Opioid Users	Inhalant Users	Significance
Number having had sex (unmarried respondents)	69/96	23/29	7/13	P=.002
Number having used condoms	4/12	33/42	70/160	p=.000
Ever heard of HIV/AIDS	157/187	48/49	22/29	p=.01

annabinoid and opioid users ere significantly more likely =0.002) to have had sexual xposure compared to the halant users. Despite a greater volvement in sexual activity ndom use was significantly sser (p=.000) among cannabinoid users than opioid users. Condom use in inhalant users was also present in only a third. The three groups differed significantly with respect to knowledge of HIV/AIDS, with opioid users more aware than the other 2 groups (p=.01)

The 3 groups did not differ significantly on weight loss or genitourinary problems. However, opioid users were significantly more likely (p=.013) to have suffered abscesses (8/41) than the other two groups.

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5.5. Mode of Administration of Drugs

Key informants said that the opiate user often started with smoking cigarettes, and gradually progressed to ganja and smoking brown sugar. This would soon change to chasing which would then continued for a long time. Among those who experimented with injection, either because of curiosity or to get immediate effect, they became addicted to it. Two of the ex-user key informants opined that previously, this transition from oral and smoking drug use to injecting use happened over many years. The present generation however, they said, got into injection use sooner. In Bangalore, most of the injection users were not able to sustain the habit because of the lack of free availability of brown sugar, and the strict tidigesic (buprenorphine) sale vigilance. People have to travel outside Karnataka state to get Tidigesic at a lower price. Fortwin injection use is confined to medical or para-medical professionals or people with chronic pain problems who are prescribed the drug by their doctors.

5.6. Social Network of Drug Users

According to the **key informants**, drug users, especially opiate users used the drug in groups. This is because sustaining the habit requires help from friends. Some of the user key informants narrated the use of latest telecommunication devices such as pagers, cell phones in the drug market. Those interviewed substantiated this. 252 respondents (91.6%) had drug-using friends. They had a mean of 12.5 (± 14, range 1-100) friends who were using drugs. Also 106 (38.7%) had 1 or more family members using drugs. A majority had family members using alcohol, followed by cannabis. A small number of family members used inhalants (9%) and opioids (5%). Drug abuse was present in 67 respondents' fathers (63.2%), 61 siblings (57.5%), 11 spouses (10.4%). Drug abuse among respondents' mothers (7,6.6%) and offspring (2, 1.9%) was much lower (fig 10).

5.7. Injecting Drug Use

Key informants from treatment

Fig 10. Family Patterns of Drug Use

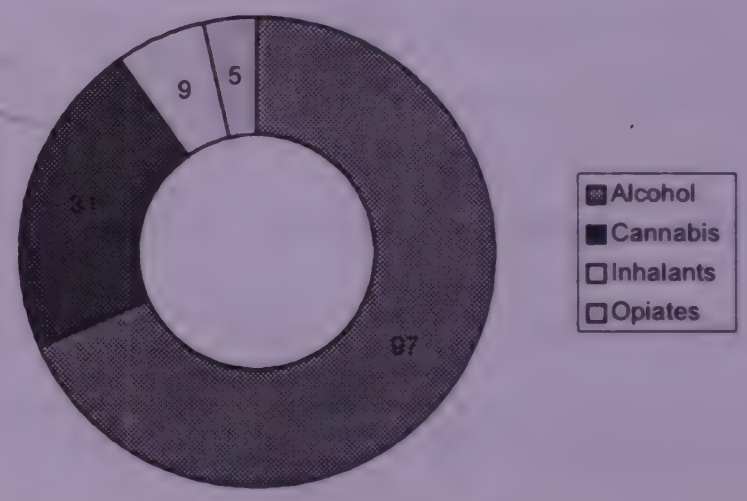
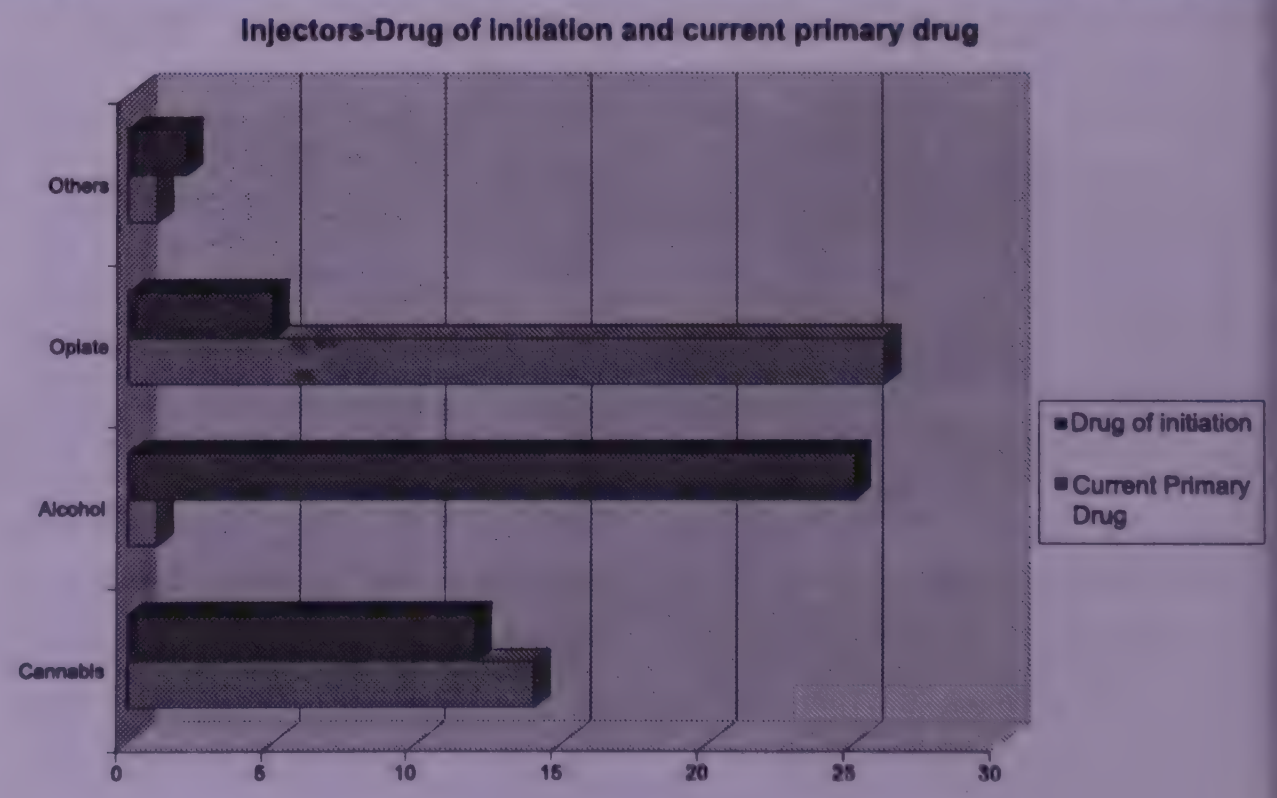


Fig. 11. Injector's Drug of Initiation and Current Primary Drug Use



ntres and ex-users were of the pinion that injection drug use is ot a major problem in Bangalore ty. However, a few of the key formants, predominantly ex-sers mentioned that most of the piate users would have tried jecting drug at least once in eir drug use history. The police ead constable felt injecting use as on the rise because of influx f students from other states. his perception was shared by a ey informant from a treatment entre, where all the 4 injectors ere from outside Bangalore. ne of the key informants, an x-user cum treatment centre ersonnel mentioned that jection spasmoproxyvon use as increasing among students.

orty five (16.4%) of ***those nterviewed*** had a lifetime story of injecting drugs. Mean ge of onset of injecting use was 2.9 (± 6.1 years). The age of nset of drug initiation did not iffer significantly between jectors (mean 17.4 years) in omparison with non-injectors 7.03 years). As is evident in e accompanying figure (fig.11), ost injectors had initiated drug se with alcohol (56%), followed y cannabis (27%). Very few had tarted drug use with opiates 1%). However, the primary urrent drug was most ommonly opiates (58%). 16 6%) were primarily using non-piate drugs, mainly cannabis.

Among those ***admitted to treatment centres***, 96 (38%) had a lifetime history of injecting drug use. Fifty six (22%) were currently injecting. Mean age of onset of injecting was 23 years (± 6.8) While in 51(20%), a history of sharing injection was recorded, this information was not available for 23% of the group. Twenty three (28%) of 81 individuals on whom information on injection sharing was available were recorded to have shared needles in the previous month.

Among the 45 persons ***interviewed*** and who had a history of injecting drug use, 19 (42.2%) had used injections for a 'higher kick', 10(22.2%) out of curiosity or for pleasure, 6(13.3%) on account of peer pressure, 3 (6.7%) in order to avoid withdrawals, 3 (6.7%) because of easier availability of injectable drugs, 2(4.4%) because of non- availability of their preferred drug and 2(4.4%) for other reasons.

38 (84%) of the 45 injectors had initiated injecting drug use with friends. 22 of the 38 recalled their first injection use along with friends in a secluded area, 15 at home in the company of friends and 1 in a park. Less than one third had injected in the place of selling drugs.

Table 12. Structured Interviews: Injecting Drug User Characteristics

Injecting Drug User Characteristics	Number (N)	Percentage (%)
Current drug use		
Opiates	26	58
Others	17	38
Not using last one week	02	04
Drug of initiation		
Alcohol	25	56
Cannabis	12	27
Opiates	05	11
Others	03	06
Mean Age at initiation of drug	17.4 years	
Mean Age at first injecting	22.9 years	
Sharing syringes and needles last six months		
Yes	22	49
No	23	50
Mean number of people with whom shared syringe/needle with in the last week	1.6(± 2.6)	
When last injected, shared needles and syringe Yes	14	64 (percentage of sharers)
No	08	26
When last injected, mean number of persons with whom shared syringes and needle with	4.3 (±2.8)	
Generally borrow syringes and needles	19	42
At last use borrowed syringes and needles		
Yes	17	38
Ever injected in drug selling place with others	13	29
Generally clean needles and syringes when injecting		
Yes	29	64
No	16	26
Procedure of cleaning		
Any available water	8	18
Wiping with cloth	2	04
With clean water	3	07
With hot water	5	11
Use disposable needles	11	24
Don't Clean	16	36
When last injected, used clean needles and syringes		
Yes	29	64
No	16	26
How cleaned on last injection use		
Any available water	7	24
Wiping with cloth	2	07
With clean water	5	17
With hot water	4	14
Used disposable needles	11	38
Where needles and syringes procured	(Often procured from more than one source)	
Pharmacy	32	71
Drug Using friend	13	22
Drug Seller	04	08
Others	02	04

According to ***key informants***, brown sugar injection was not as common in Bangalore as in other parts of the country. The reason stated by them for this fact was that it was difficult and rather expensive to get quality brown sugar in Bangalore. Buprenorphine (Tidigesic) use in Bangalore is found sporadically, because of restricted availability. It is more freely available in neighbouring Andhra and Tamil Nadu. Other injections such as Fortwin are not obtained easily. Drugs reportedly injected by users are brown sugar, buprenorphine, and pentazocine as primary drugs and diazepam, promethazine (phenergan), chlorpheneramine (avil) etc as potentiating drugs.

The tendency of the injecting drug user is to use disposable syringes and needles, which are easily obtained, in the market.

5.8. Disease History of Drug Users

Among ***those interviewed***, 122 (44%) had sought treatment at hospital since using drugs

General symptoms of ill health were the main reason for treatment seeking (table 12). Thirteen of the 275 respondents (11%) had sought treatment because of accident. Eight (7%) had sought treatment for sexually transmitted disorders. However, a larger number had suffered genital lesions suggestive of STD's as is apparent in the table 13.

Table 13. Illness Symptoms Reported by Drug Users

Illness/Symptom (positive responses only)	Number (N)	Percentage (%)
Tuberculosis	05	1.8
Jaundice	13	4.7
Weight loss	73	26.5
Diarrhoea>one month	13	4.7
Fever>one month	32	11.6
Any other illness	129	47
Genito-urinary problems/Genital lesions		
Growth over genitalia	08	2.9
Growth around anus	04	1.5
Ulcer over genitalia	32	11.6
Burning micturition/pus in urine	40	14.5
Swelling around groin	19	6.9

ommon symptoms reported in his group (129) included aches nd pains, fever and astrointestinal symptoms. Veight loss (26.5%) and chronic ever (11.6%) were over epresented in the group. Most of hem had not been evaluated for hese symptoms. Eighteen espondents (6.5%) reported uffering from abscesses, a nean of 2.7 (± 2.3 times). Four f this group had suffered bscesses in the last month. Eleven (61%) of the 18 espondents who suffered bscesses were injectors.

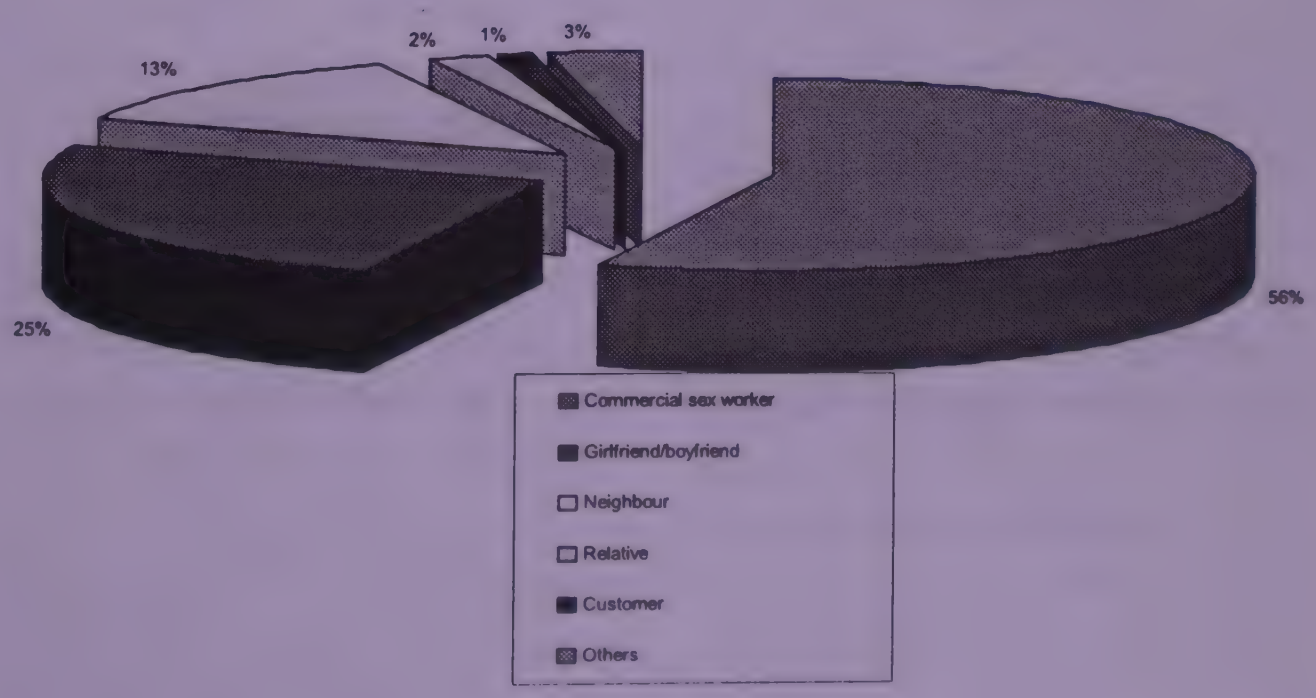
Of the 103 respondents who eported genitourinary symptoms/ enital lesions, 38 had sought elp from a hospital or private ractitioner.

5.9. HIV/AIDS

Key informants from different ategories were of the opinion nat the awareness among ommon people about HIV related natters is quite high. Drug sers are careful not to share ne injection equipment and to se disposable syringes and eedles. However they remain a igh-risk group as was revealed the ***interviews***. Seventy two 32%) of 226 respondents eported drug use with a member f the opposite sex. Fifty eight 30%) of this group also reported exual contact with the drug using partners. Of the 152 unmarried respondents, 103 (68%) reported an experience of sexual intercourse. Eighty nine (72%) of 123 married respondents reported experience of sexual intercourse outside marriage.

Mean age of first sexual experience was 18.8 (± 18.7) years (range 11 –30). Of 193 respondents (103 unmarried and 89 married who reported sexual contact with person apart from spouse), a majority reported first sexual intercourse with commercial sex workers (56%) (Fig 12). Of this group (N=193), 159(82%) had a lifetime history of sexual intercourse with a sex worker, and 49 (25%) reported having group sex (e.g. few friends having sex with the same sex worker. In the last one year, the median number of sex partners was reported to be 4 (this value is more reliable because some respondents, for instance commercial sex workers, reported more than 600 sex partners during a year). Eighteen of the 193 respondents (9%) reported having sexual intercourse with a member of the same sex. 111 (49%) of 226 respondents with sexual experience reported use of condoms.

Fig 12. First sexual experience (for unmarried respondents) and married respondents reporting sexual experience outside marriage



As is evident in table 14, of 111 respondents, 17% reported condom use with all partners all the time. Of 94 respondents with sexual contact with sex workers only 33% used condoms all the time. Although the number of respondents reporting homosexual contact is small, less than half this group used condoms during sexual contact. With girlfriend and boyfriend, condom use was especially low (7%).

Table 14. Frequency of Condom Use

	With all partners		With CSWs		With same sex		With Girlfriend/ Boyfriend	
	N	%	N	%	N	%	N	%
All the time, with all partners	19	17	31	33	03	42	6	7
Most of the time	39	35	27	29	1	14	12	15
More than half the time	12	11	7	7	-	-	5	6
Less than half the time	15	14	10	11	-	-	4	5
Rarely	26	23	19	20	3	43	56	68
Total responses	111	100%	94	100%	7	100%	83	100%

Awareness about HIV/AIDS was assessed among the respondents. 237 (86%) had heard of HIV/AIDS. Of them, 205 (87%) were aware that it could be transmitted through the sexual route and 64 (27%) that it could be transmitted through injecting routes. 8 (3%) were aware that it could be transmitted to the foetus. Thirty two (14%) reported knowledge of other routes of transmission. Some examples of transmission given were 'through food, coughing, old blades, body contact, association with AIDS person, sharing food of AIDS patient, a change in the doctor's prescription or treatment, using the place where the AIDS patient has urinated, ulcer over genitalia can cause AIDS, AIDS can be spread through sharing soap', suggesting misconceptions about HIV transmissibility.

Of the 237 with knowledge of HIV/AIDS, 209 (89%) thought they were unlikely to acquire HIV/AIDS. 14 (6%) felt it was likely and 8 (3%)that it was somewhat likely that they would acquire the infection. 6 (3%) could not estimate their likelihood of risk.

Eighty seven (37%) had undergone blood testing for HIV, and 82 of this group (94%) were aware of their results, all of whom were willing to share the result. Five of the 82 (6%) reported that they were HIV+. Eighty two of 236 respondents (35%) were aware of someone else who had a positive HIV status.

The records from the ***treatment centres*** reveal that of the 135 drug users who had undergone HIV testing, 3 (2%) had tested positive, 130(96.5%) negative, and in 2(1.5%) the results were not known.

-depth Interviews

Ve interviewed 12 drug users onsuming different drugs to btain a better understanding of heir life situations and the nfluence of drugs on various spects of their lives. Some of heir interviews have been resented as case vignettes.

Box 5. Dope to cope

M is a 30-year-old Hindu doctor who fell in love with a classmate 3 years ago. He was not able to tell this to his parents. His parents got him engaged to another girl. M felt confused and frustrated. He was unable to imagine a life without the girl he loved. He thought about it for several days and then broke his engagement. His parents were extremely traumatised. Since then, M started feeling very low. He stopped studying for his exams and even stopped attending college. He would feel extremely sad and started drinking whenever he thought about his girlfriend. He failed twice in his examination. His decline in academics and change in behaviour distanced his girlfriend from him and she became involved with another boy. Since then, he has never been happy, and lost his self-confidence and faith. M was taken to a psychiatrist and started on antidepressants.

A year ago, M developed severe pain in abdomen. He tried various painkillers to reduce his pain without relief. He was subsequently admitted to a private hospital where he was given injection Fortwin (pentazocine). For the first time after 3 years, he felt confident and euphoric. He received the injection daily for 8-10 days before some abdominal surgery, the details of which are not available. The feeling of euphoria was so pleasurable that he continued the injection. Being a doctor, it was easy for him to obtain the injection. Initially he was taking two ampoules per day. Gradually, he increased it to two ampoules three times a day. At the time of the interview, he was ready to give up injecting if he could maintain a happy mood state and was willing to take help from a psychiatrist for treatment for his depression.

Box 6. From one drug to another

J is a 38-year-old man who started ganja use at the age of thirteen, while in the sixth standard, along with his friends. He has since smoked bidis and cigarettes, taken mandrax, prodrom, nitravet (nitrazepam), brown sugar and tidigesic (buprenorphine) and Fortwin (pentazocine) injections. He has also been abusing cough syrup and phenergan syrup for several years. His father and brother abuse alcohol. He is currently married and works as a dog trainer. Though he earns Rs.15000 per month, he still suffers financial problems, as most of his money is spent on drugs. His relationship with his mother, wife, and children is strained. Although he loves them, they resent his drug taking and he feels they do not like him. He has tried to stop, but finds the withdrawal symptoms horrible. He stopped injecting because he could not find veins, and currently uses mainly ganja and alcohol. J describes his drug taking 'just as it happens in the movies'. He had sex for the first time at the age of 17 years with a neighbour, but since marriage, has had sex only with his wife. He is aware of sexually transmitted disease from films and magazines and has had counselling. He was once arrested for drug possession and was in prison for a month. He says ganja is available in the prison.

Box 7. Drugs, disease and risky sex

D is a 43 year old Christian, resident of Kammanahalli, in East Bangalore. He started using alcohol at the age of 12 years out of curiosity, and began use during parties and festivals. However, no one in his family used any drug, including alcohol. At the age of 14, he started working, and simultaneously started smoking and using ganja. At the age of 18, he joined the Indian Navy as a cook. He came across people using other drugs. In the beginning, he initiated use of other drugs our of sheer fun, but he was unable to stop once he became addicted. He has used hashish, opium, Brown sugar both chasing and injecting, cough syrup and has experimented with snake bite. He started injecting use with tidigesic, on the advise of his Navy friends, to avoid withdrawal symptoms from brown sugar. Injection use was mostly alone, and he rarely shared needles. His first sexual experience was at the age of 18, when he had sex with a sex worker. In the Navy, he has had group sex and had some homosexual relationships. He has been previous treated for sexually transmitted diseases. He currently has a steady girlfriend. While in the Navy, as he was single there was no significant problems. Since he left, he has started a Bakery in Bangalore and is now facing problems. His sibs are in the United States. His mother and one sib live with him. He feels bad that most of his income is spent on drugs and he is unable to support them. He stopped injecting drugs as he was not able to find good veins. He has suffered abscesses. He has been attending NA meetings. He has taken treatment twice, but relapsed. He is looking for a short-term treatment at some centre.

10. Drug Use in Special Populations

Drug Use among Women

Twelve women were interviewed during the RAS. All of them were married. 4 were illiterate, 1 had completed primary school, 2 had dropped out secondary school, and 1 had completed secondary school. 9 were Hindu, 2 Muslim and one Christian. 5 were from Central, 4 from South, 2 from East and one from West Bangalore. 8 (67%) presently held jobs. 5 (42%) were commercial sex workers, 4 (33%) housewives and 3 (25%) daily wage labourers. None of the woman users had started drug use at the age of fourteen. 7 (58%) had started use in their later teens. 5 (40%) had started drug use in their twenties or later. 7 (58%) had initiated drug use with alcohol, 2(17%) with inhalants, 2(17%) with opioids (cough syrup) and 1 (8%) with cannabis. 5(42%) were presently using cannabis, 5 (42%) inhalants, and 2 (16%) cough syrup. Reasons given for initiation of drug use were primarily seduction of worry (5,42%), peer pressure (3,25%), financial problems(2,16%) and pleasure (2,26%). They were spending a minimum of Rs 10-Rs 100 and a maximum of Rs. 15 to Rs. 200 per day on drugs. Income was highly variable and ranged from Rs. 400 per month to Rs. 30,000 per month. 10 respondents (83%) reported a family history of drug use and 9(75%) reported drug use in their friends. They reported between two to ten drug using friends. None of the women respondents had injected drugs.

Box 8. Fighting the blues

K is a 32-year-old divorcee, staying with her 8-year-old daughter. She was married 10 years ago. K was unable to adjust to her in-laws, and as her husband was away at work most of the time, was unable to talk about her distress to anyone, as she was not allowed to go out freely. On a rare visit to her sister, she poured out her grief. Her sister's husband took her to the nearby medical store, bought her a cough syrup bottle, and advised her to drink it every day, to improve her mood. After a year, her husband moved to Kuwait on business. Her loneliness increased. She gave birth to a child back in Bangalore. Gradually his trips home reduced and his neglect of her increased. He developed an extra marital relationship. He divorced her 5 years after the marriage and is currently paying her alimony. Her drinking cough syrup has gradually increased. She is currently consuming 4-5 bottles of phensedyl per day. She occasionally takes one or two tablets of Ativan (lorazepam) for sleep. This was originally prescribed by a general practitioner, but she continued non-prescription use. "If you can give me a little happiness in my life I will stop using drugs" she says.

Box 9. Vulnerable temperament- Easy target

P is a 22-year-old brought by her mother for brown sugar abuse. The older of 2 siblings, P was largely brought up by her mother after the death of her father. She had been temperamentally very emotionally sensitive and impulsive. After school, in the company of friends, she had started to use alcohol and smoke. She got involved with a musician friend, and in a group, started using brown sugar. She felt it helped her cope with her emotions and began injecting use and smoking. She would often fix herself in the bathroom. She began to have serious interpersonal difficulties with her boy friend, but because she became pregnant, was not able to easily break up the relationship. She had an abortion against his wish and this strained their relationship further. The guilt over the abortion, the stress of the strained relationship and involvement with another friend all aggravated her emotional turmoil and increased the use of injecting opiates.

Drug Use among Street Children

The Street Children's Forum began to examine drug abuse in street children seriously after the death of six children from inhalant abuse. As far as street children are concerned, observations suggest that 70-80% abuse drugs. Here, the vulnerable age and special circumstances interplay and lead them to drug use. With this population it is not only increased drug use that is an issue. Management aspects are also of concern. Their motivation to give up drug use is extremely low. Street children differ from the regular population in terms of the types of drug abuse. The commonest drug of abuse is erazex, followed by petrol and glue. Alcohol and ganja use is also seen but brown sugar abuse is relatively less common. Injection drug use among street children is hardly seen. Another concern in street children is their high-risk sexual behaviour (both homosexual and heterosexual). Female street children, though fewer in number, risk ending up as commercial sex workers.

Commercial Sex workers and Drug use

Key informants opine that substance use is a common phenomenon among commercial sex workers. Initially they use drugs to overcome anxiety and later get addicted to it. Alcohol is the most common addiction, but ganja use is also found. Brown sugar use is seen, although rare.

5.11. Perception of Need for Treatment and Available Resources

Many of ***those interviewed*** (169) felt that help was needed to give up drugs, and a majority were aware of the usefulness of medicine/counselling. (table 15). About a third 88 (32%) felt that there was no need for treating drug abuse and a smaller number 18 (7%) felt no treatment was possible.

Box 10. Sheesha – the Street User's High

V is an 8-year-old boy who lives on the street. He plays with other children throughout the day. In the morning and evening, he looks after footwear left by devotees outside the temple. His elder friends have taught him to inhale 'sheesha'. He likes the smell and enjoys inhaling it. Recently, he has learnt to smoke bidis. He says he feels cold every night as he has nothing to cover his body and the bidi helps to keep him warm and sleep soundly. At times, he eats charcoal with other street children.

Table 15. Perception of Treatment Need for Drug Problem among Respondents

	Number perceiving strategy as generally useful (N)	Percentage (%)
Medicine /Counselling	115	42
Rehabilitation	22	08
Others (hospitalisation-Drug substitution, Self control)	31	11
No treatment needed or drug abuse	88	32
No treatment possible	18	07
Total	274	100

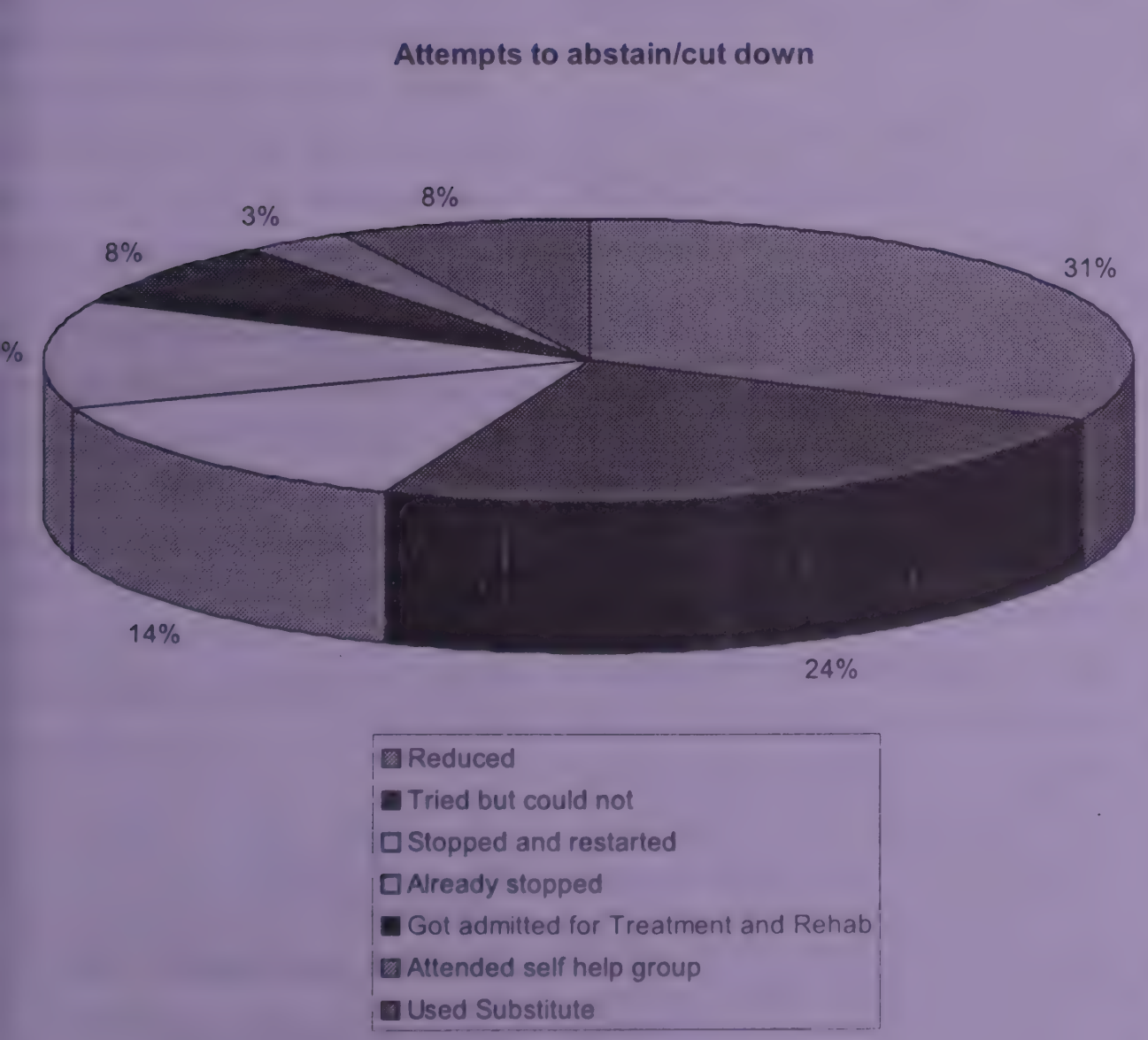
While discussing the perceived usefulness of strategies to stop/ reduce drug abuse, more than one third of the respondents felt they needed medication or counselling to give up their drug habit. Twenty seven percent did not want to stop and another 6% felt it was not possible. Eleven percent felt that it was possible

give up drug use with self-ontrol. A smaller number (26, %) perceived the need for habilitation. Drug substitution eemed a desired option with very few (5%). Five (2%) were already abstaining from drugs at the time of the interview. (Table 16)

Table 16. Perceived Usefulness of Strategies to stop/reduce drug abuse (Specific to self)

	Number (N)	Percentage (%)
Need medicine/counselling	101	37
Do not want to stop	75	27
Self Control	31	11
Rehabilitation	26	09
Not Possible	16	06
Drug Substitution	13	05
Others	07	03
Have stopped currently	05	02
Total	274	100

Fig. 13. Attempts to Abstain/Cut down Drug Use



Sixty-five (24%) of the respondents had attempted to reduce their drug intake in the previous month (fig13). Thirty one percent of this group had reduced their intake, and 12% had already stopped. Sixteen (24%) had attempted to cut down but had not been able, and 9 (14%) had restarted after stopping. Seven had taken help from self-help groups or through treatment during the previous month.

Key informants from all treatment centres opined that the major source of referral to their centres is other patients or their relatives and friends. The other important source of referral to them is other hospitals after detoxification, AA and NA. Most of these centres run awareness programs, either through talks or through newspaper advertisements, which also brings them patients.

Nature of Treatment

Among those admitted to treatment centres, it was found that 152 (59%) underwent detoxification. Advise, counselling and support was provided for 152 (59%), medication and longer-term psychosocial treatment provided for 128 (50%). 33 (13%) were recorded as having left without completing treatment.

Almost all the treatment centre key informants were of the opinion that drug abuse management requires a minimum of 3 months in-patient management. If the patient has any co-morbid psychiatric disorder or personality problems, the duration of stay increases.

As far as the goal of the treatment is concerned, except for 2 private psychiatrists the other key informants opined that complete abstinence is the aim. The 2 private psychiatrists said they normally discussed treatment goal choice with the patient and family.

NGO run treatment centres have a structured activity schedule for the patient, if they are not acutely ill. This includes morning exercises, yoga, providing reading materials concerning drug abuse issues, writing reflections, individual therapy, group therapy, family therapy, study classes taken up by counsellors about different aspects of drug abuse.

In the Government run hospitals, Medical Colleges and Private Hospitals where psychiatrists are the key persons in the management, the focus is on detoxification, medical management of relapse prevention, individual counselling and family counselling. Group counselling is also a routine programme in the centres with a larger drug abusing clientele.

Some of the organisations also run awareness programs in schools and college through posters, talks, and street drama. Two of the centres conduct life skill education programs with children rather than just focusing on drug abuse problems. Here, children are taught better communication skills, problem solving skills, creative and critical thinking skills, self-esteem building skills etc. The main complaint about prevention programs is that they are few in number and that none of them are run in a consistent fashion.

All the 4 NGO key informants and ex-users were of the opinion that harm reduction strategies such as needle exchange had no place in the management of drug abuse as they feel these actually encourage drug abuse. These respondents believe that drug abuse is a treatable problem. One of them opined that harm minimisation strategies may be helpful as short-term strategies. However in the end, complete abstinence is the only answer. All of them talked positively about safe sex methods such as using condoms etc.

The psychiatrists interviewed were of the opinion that harm reduction programs were useful. Some of them who believed in giving the choice for goal setting in treatment to the patient and family opined that if the individual continues to be a user out of choice, harm reduction strategies are particularly relevant.

The main issue mentioned by NGO personnel and other treatment personnel was the lack of adequate funding which in turn affects maintaining a consistent, satisfied supportive staff. The important issues identified by them are:

1. Financial issues
2. Lack of commitment by other staff
3. Drug use in the inpatient setting
4. Difficulties in admitting a patient against his will
5. No legal protection for the family from the problems created by the user

Lack of separate treatment facilities for female drug users whose needs are different was highlighted.

5.12. Drugs and Crime – Different Dimensions

Drug Use and Crime

All the ***key informants*** from law

forcement agencies agreed at drug use and crime were lated. While 4 key informants elonging to the state police epartment said that they had t come across crimes related drug abuse, 3 key informants om Central Customs and xcise officials opined that drug nd crime are related. They said at most of the under world ons were involved in the drug arket. The money profit is uge and people involved in the etwork do not hesitate to ommit even serious crime such murder to protect themselves nd destroy proof against them.

Bangalore City however, the cene is not as grim and the ficials had not come across ch incidents during their tenure ere. But they did take ecautions to protect themselves the time of seizures and trials not disclosing their identity in blic.

rison officials also felt that th drug and crime are related. owever, cases arrested for drug lated crime, apart from illegal ssession are hardly ever seen. the other hand, they felt that mestic violence and social oblems due to drug users' aladaptive behaviour did not me under the purview of the ison officials as these cases ere registered under the Indian nal Code (IPC).

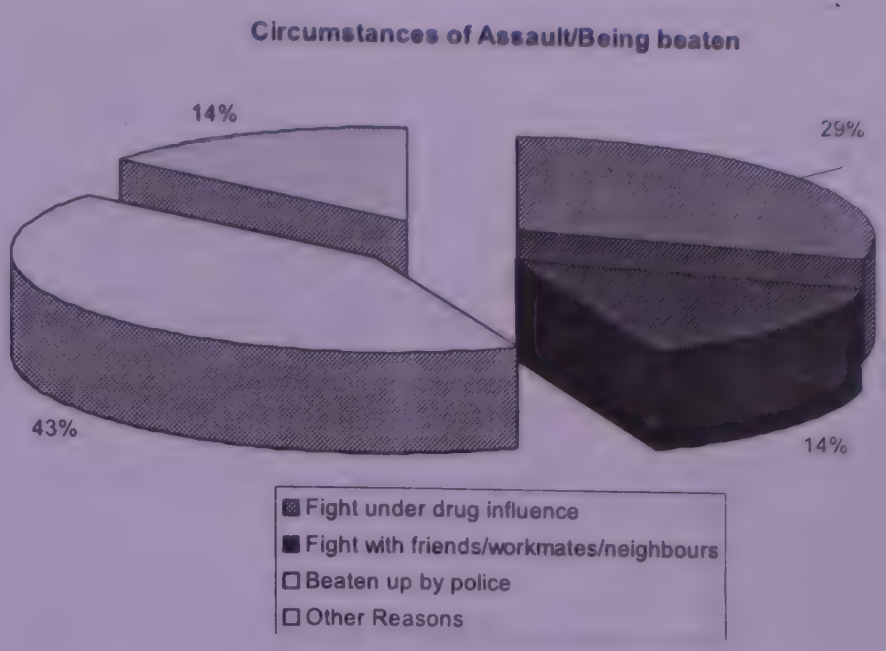
Among those interviewed, 69 (25%) reported either being beaten up or involvement in assault. Of this group 20 (29%) had been involved in fights under the influence of drugs. 10 (15%) had been involved in fights with friends, co-workers or neighbours. 29 (42%) had been beaten up by the police, of which 6 for drug possession, 8 for quarrelling and the rest for other reasons.

Among the respondents, 39 (14%) had been to jail sometime in the past and 14(38%) of this group in the previous year. 26 (70%) of 37 respondents reported being able to get drugs inside jail.

Drug Use in Prison

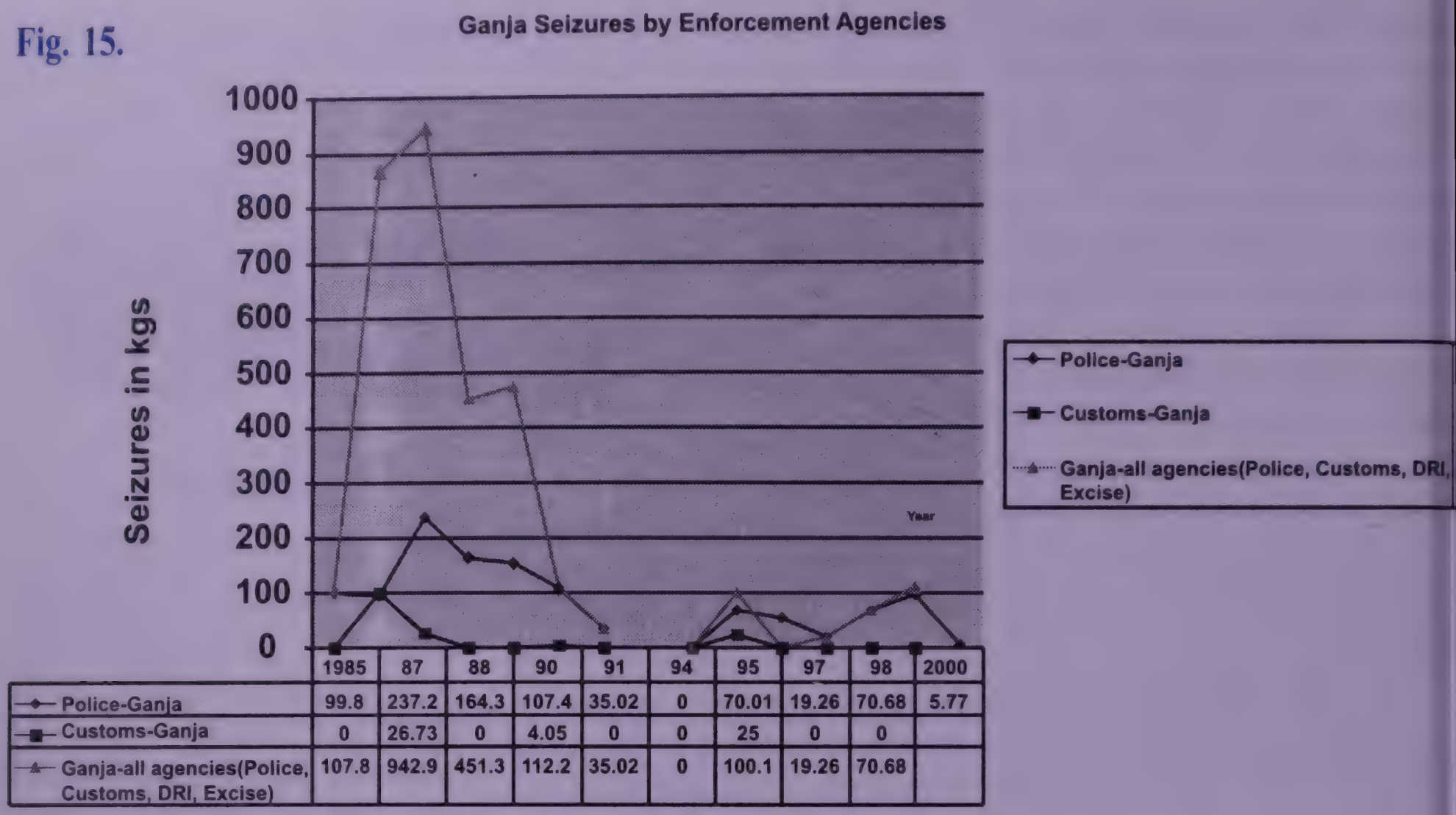
There is major overcrowding in the prison. While the capacity is for 766 persons, it houses 2163 inmates, including 38 females, housed separately. The overcrowding leads to poor supervision, poor facilities, and greater health hazards. Homosexual activity is reportedly prevalent in about 30% of prisoners.

Fig. 14. Circumstances of Assault



According to the key informants within the prison, ganja is available in the prison. It is thrown over the prison wall in the following sequence-first the prisoner receives a visitor, and they decide on a particular place and time of passing the drug. They have a signal, and following that throw ganja packet into the prison. The prison authorities monitor such activities. If a prisoner is caught with less than 5 grams of ganja, he is warned and let off. If it is more than that, a complaint is lodged with the police and further action taken. Drug users create very serious problems in the prison. The staff attempts to segregate them from other prisoners. There are 2 medical officers in the prison, but no separate medical facilities are available, and most patients have to bear the withdrawal symptoms. Those with serious physical problems are referred to outside hospitals.

Fig. 15.



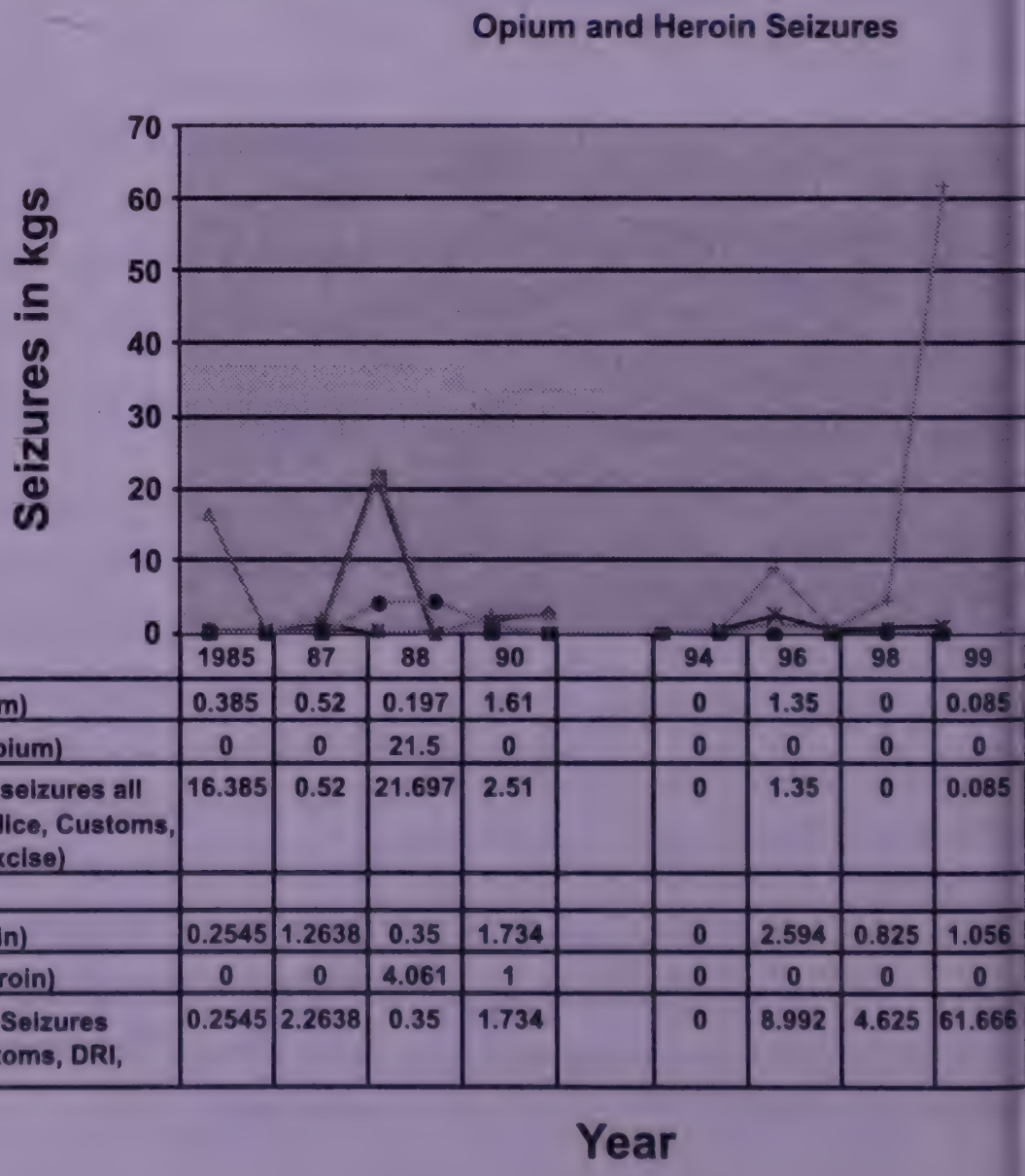
	1985	87	88	90	91	94	95	97	98	2000
Police-Ganja	99.8	237.2	164.3	107.4	35.02	0	70.01	19.26	70.68	5.77
Customs-Ganja	0	26.73	0	4.05	0	0	25	0	0	
Ganja-all agencies(Police, Customs, DRI, Excise)	107.8	942.9	451.3	112.2	35.02	0	100.1	19.26	70.68	

At the time of writing this monograph, the prison was being shifted to the outskirts of Bangalore, from its city centre location.

5.13. Drug Seizures and Arrests

To understand the drug enforcement scene in the state, data for the previous 5 years was collected from law enforcement agencies. This was complied with information available from previous studies. It was found that the police made most of the ganja seizures. Ganja seizures appear to have been highest in Bangalore in the late 1980's and considerably

Fig. 16. Opium and Heroin Seizures



	1985	87	88	90		94	96	98	99
Police (Opium)	0.385	0.52	0.197	1.61		0	1.35	0	0.085
Customs (Opium)	0	0	21.5	0		0	0	0	0
Total Opium seizures all agencies(Police, Customs, DRI, NCB, Excise)	16.385	0.52	21.697	2.51		0	1.35	0	0.085
Police (Heroin)	0.2545	1.2638	0.35	1.734		0	2.594	0.825	1.056
Customs(Heroin)	0	0	4.061	1		0	0	0	0
Total Heroin Seizures (Police, Customs, DRI,	0.2545	2.2638	0.35	1.734		0	8.992	4.625	61.666

declined in the 1990s. Cannabis use has however continued to be common even during this decade. (fig. 17) With regard to charas, the police seized 18.01 kgs in 1985 by, and subsequently smaller amounts (0.82kgs in '87, 0.078 kgs in '89, 2.5 kgs in 1990, 1.3 kgs in '91, 1.15 kgs in 1995, 0.3 kgs in 1997). In 1999, a relatively larger haul of 5.77 kgs of charas was made. One seizure of hashish of 9.8 kgs was made by the Customs in 1996.

Raw opium seizures were of larger quantities in the late 1980's and early 1990's as evident in the accompanying figure. What is striking is the progressively increasing seizures of brown sugar. In 1999, the Narcotics Control Bureau made a huge seizure of 58.836 kgs in the city. (fig. 18). While there is no record of buprenorphine seizures in the 1980's, the state police seized a total of 925 ampoules between 1995 and April 2000 (410 in '95, 304 in '96, 179 in '97, and 32 in '99). They seized 4.260 kgs of other unidentified narcotics in 1999.

The Customs and DRI have also made methaquolone seizures. In 1994, the DRI seized 419.75 kgs of methaquolone and 1545.5 kgs in 1996. The Customs seized 2998.80 kgs of methaquolone in 1994.

Table 17. Arrests under the NDPS Act

	No of cases	Instituted during the year	Disposals during the year	Convictions during the year	Acquittals	Pending
as on 31.3.1995	234	79	7	1	6	306
1996	306	61	61	13	48	306
1997	306	25	43	5	38	288
1998	288	28	130	0	130	186
1999	186	45	122	1	121	109
as on 30.6.2000	109	17	58	0	58	68

Occasional seizures of cocaine have been reported, 0.078 kgs in 1989 and 1991, 0.5 kgs in 1996, and 0.75 kgs in 1998.

There have not been many seizures of psychotropics nor any major initiative to curb psychotropic dispensing without proper prescription. According to a ***Drug Controller***, who is responsible for prescription monitoring, except for a single case 3 years ago, no offence has been reported in the dealing of psychotropic drugs. The main problems faced with respect to psychotropics were that unqualified people dispense drugs in chemist's shops and the person is not even aware of drugs containing opiates and psychotropics.

Arrests under the NDPS Act

Information from the City Civil Court on Cases instituted, convicted, acquitted, and pending under the NDPS Act is presented in table17.

As is evident from the accompanying table, the rate of conviction is extremely low, and cases are kept pending for a very long time. Acquittal rates are very high because of loopholes in the procedural aspects.

Prison Data

Table 18. Arrests under the NDPS Act-Detainees in Central Prison

Period (as in)	Males	Females	Total
December 1996	67	-	67
December 1997	06	-	06
December 1998	12	-	12
December 1999	21	-	21

6. Development Of Responses

The Rapid Assessment Survey done in Bangalore was mandated to cover various kinds of primary and secondary sources of information. The previous studies allowed for an estimation of the drug problems in the city and in the observation of linear trends in drug abuse over at least a decade. The RAS further helped in getting a comprehensive picture of drug use and its ramifications in the city of Bangalore.

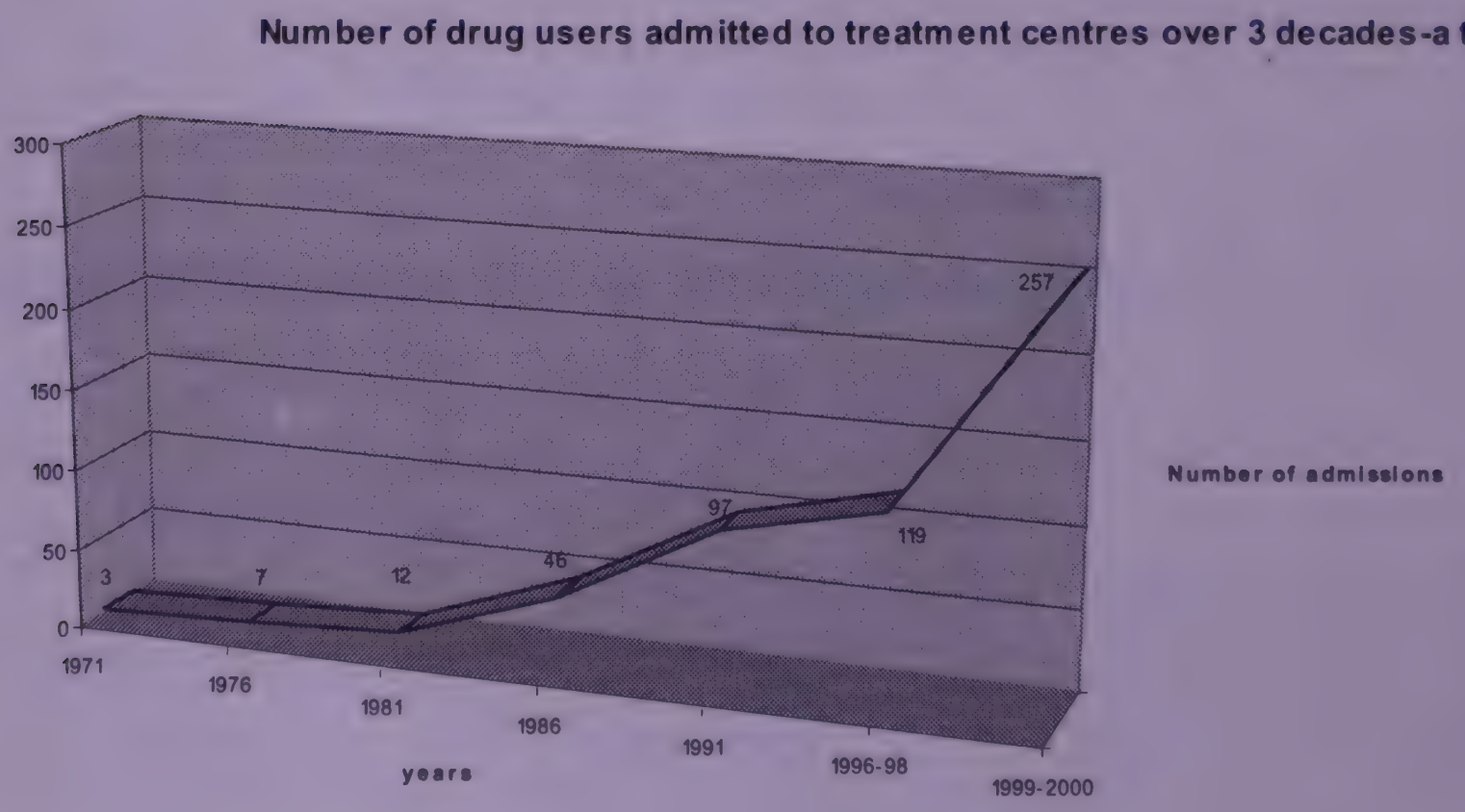
6.1. Patterns of Drug Use

Alcohol is by far the substance most commonly abused in the city of Bangalore. While the RAS did not address primary alcohol users, even among other drug users, it was the first drug used in half the respondents in the survey, and 90.5% had used it sometime during their drug use career. The prevalence of alcohol use ever in the general population was 37.5% in 1989 (Chanabasavanna et al 1989) and appears to be somewhat constant, despite a 114% increase in per capita consumption of alcohol (Benegal et al 2000). With respect to treatment centre utilisation, alcohol use related problems account for 97% of admissions, followed by opioids and cannabis (Data Bank, De-Addiction Quarterly 1997)

Admissions to the treatment centres in Bangalore for drugs apart from alcohol have consistently been increasing over the years as illustrated in the accompanying figure. Although under-representative (all treatment centres have not participated consistently), it provides an idea of the increased utilisation of treatment services, and this demand certainly reflects increasing drug use in the community.

80% of the drug using respondents also used tobacco. This information was not accurately recorded in treatment

Fig.17. Trends in Admissions for Drug Abuse Related Problems to Treatment Centres (alcohol admissions excluded)



ntre data files. It is well known t health hazards caused by bacco are extremely serious d they need to be addressed the treatment stage as well in prevention.

om the *community key formants*, it appears that after cohol, cannabis is the mmonest drug of abuse, llowed by opiates (mainly eroin). This is supported by the *AS interview data*, where annabis was the initiating drug 33.1%, used in lifetime by 5.6%, and currently used by 3.3%, and was the primary drug use for 69.8%. The picture om *treatment centres* on the her hand is different. Opiates e the primary drug in 46% and oncurrently used with other rugs by 28%. Among the piates, heroin is the commonest the community (69%) and in e treatment centres (58%). eroin has emerged as one of e most common opiates of buse since the late 1980's Channabasavanna et al 1989). While the trend analysis of piate admissions at NIMHANS evealed an increase of uprenorphine and pentazocine in e early 1990s and basmoproxyvon in the mid 1990's (Eranti et al 2000), heroin appears back as the primary opiate of use. This raises the issue of increasing availability of heroin in the city, and is possibly supported by the increased trafficking of brown sugar and its diversion to illicit use.

Pentazocine abuse still accounts for 23% of opiates in the treatment centre, use of synthetic opiates in the community is lower (12.5%).

These findings appear to suggest that more opioid users appear to reach treatment than do cannabis users. This may be a reflection of various factors, for example, lack of perception of problem with cannabis, better knowledge and accessibility to services of opiate users. However factors such as high risk sexual behaviours among the drug users out of treatment services reach highlights the need for strategies to reach the unreached.

Inhalant users are hardly represented in the treatment population, a possible reflection of their socio-economic status as well as their discomfort with institutional settings. Earlier studies (Channabasavanna et al 1989) did not focus on inhalants as a drug of abuse. This was possibly because of the nature of the population surveyed, as inhalant use has been documented here as early as in the 1970s. However, the use of erasex (diluting fluid) appears to have definitely become more visible among slum and street children. The study in 1994 recorded only a few cases of inhalant use in slum dwellers, but this appears to have reached alarming proportions among street children.

A comparison of some of the salient characteristics of drug users from the studies of 1989, 1994 and the present RAS in 2000 is provided in table 20. The studies are not strictly comparable, as the first one was a study in the general population. However, it provides some general impressions of the trends in drug abuse over a decade. To recapitulate, the 1989 study, which provides information on 53 drug users in Bangalore is a population based survey, the 1994 study on 35 users identified through key informants and the 2000 RAS on 274 users. Treatment centre information is also summarised.

Table 19

Study Variable	Information from the Community			Treatment Centre Data	
	Chanabasavanna et al 1989 (population survey	**Machado (IFCU-GRITO 1994) (Drug user interview)**	**RSA 2000 (Drug user interview)**	**IFCU-GRITO 1994 (1971-1993 admissions)**	**RSA 2000**
Age of drug user	Most frequent age group: 41-50	Most frequent age group: 25-34 (58%)	Mean 29.2 years	Most frequent 23-28 years of age* (41%)	38.7 years
Age of Initiation	Not mentioned	Most frequent 15-19 years (54%)	17.11 years	Most frequent 18-23 years (42%)	20.9 years
Education Illiterate High school of more	10.5% 65.4%	0% 89%	32% 17.9%	1.9% 59.2%	1.5 81.5%
Marital State Married	74%	37%	44%	31.5%	
Percentage Christian	9.1%	40%	15.6.%	37.1%	
Percentage unemployed	NR	25.7%	5.8%	23.6%	30%
Rank order of Reasons for initiation	Enjoyment Group Activity Solving problems / forgetting	Curiosity Peer pressure	Curiosity/pleasure Peer Pressure Family.financial problems	Peer pressure Curiosity/experimentation To overcome depression	
Rank order of drugs of use (apart from alcohol)	Cannabis Barbiturates Heroin	Brown Sugar Cannabis Other opiates	Cannabis Heroin Inhalants	'70s - Barbiturates Cannabis 80's Poly drug use Cannabis Heroin / other opiates '90s- Cannabis Heroin and Other opiates Benzodiazepines(BDZ)	Heroin Cannabis Pentazocine Sedative/hypnotics(BDZ)

ank order of oice of opiates	Heroin Other opiates (very few cases)	Heroin Other opiates	Heroin Spasmoproxyvon pentazocine	'70s - nil '80s - Heroin and other opiates '90s - Heroin Pentazocine and buprenorphine Codeine (Cough syrup)	Heroin Pentazocine
njecting use resent (%)	Nil	57%	16.4%	Not recorded	21.6%
haring needles nd syringes	NR		42%	Not recorded	19.7%
Previous treatment	Not recorded	12%	14.2%	34.6%	47.10%
Location of Use-Rank order	Not recorded	School/College Pub/bar Restaurant Park Street Hostel	Homes of friends Secluded places Parks	House Street School/Colleges	Not recorded
Arrests	Not recorded	14%	14.20%	Not recorded	Not recorded

As is evident in table 19, while barbiturates use was common in the seventies, heroin became the drug of the 80's and 90's. Cannabis use has been well known and it continues to be the most common drug used in the community. Among opiates, heroin (as brown sugar) was the most common opiate, closely followed by synthetic preparations such as pentazocine. However in Bangalore, use of brown sugar in the community appears to exceed the use of pentazocine and buprenorphine. In treatment centres, opiate use admissions exceeds cannabis and apart from brown sugar, pentazocine use is still prevalent among injecting users. Peer pressure and experimentation appear the most common reasons for initiation. Drug abuse among the younger age groups seems to be growing in comparison to the 1980's.This is probably because of the increase in inhalant abuse in the street population. Age of initiation appears comparable over the last 5 years, but the data on street children suggests that drug use in that population begins earlier. Initiation is largely with friends, outside the house. More illiterate persons have started to use drugs, this again explained by the use of inhalants and cannabis in the lower socio-economic classes. Most users are in employment and their earnings are largely spent on drugs. About two thirds are married. The higher rate of married individuals in the 1989 study is because of the older age of the respondents who reported drug use. Although a majority of the drug users are Hindus, as would be expected (because of the demographic distribution), there has been consistent over-representation of Christians among drug users. This could be partly explained by the fact that most drug users interviewed from the city were from East and North Bangalore, but could also be explained by socio-cultural differences.

6.2. Injecting Drug Use

Injecting drug use was only noted exceptionally in the 1980's. The IFCU-GRITO (1994) study reported injecting drug use in 57%, while reported injecting use in the current study and from treatment records and community survey are more consistent (21.6 and 16.4% respectively). While the higher report in the 1994 study could be partly explained by the sampling procedures (users were recruited through ex-users admitted at St. John's, thus an over-representation of opiate users, especially injecting users may have occurred), it is also supports the fact that injectable opiates (especially pentazocine and buprenorphine) were more easily available in the early 1990's. As is evident from the table, drug use appears to have become less public, possibly because of increased vigilance. Those admitted at treatment centres are better educated, from a better socio-economic class and have better knowledge of the risks of drug abuse, including HIV and AIDS.

About injecting practices, what emerges from the Rapid Assessment Data is that almost half the injectors had shared needles at least once in the last six months. Although 64% reported cleaning their needles and syringes, the procedures adopted were far from safe. Although injecting drug users are a small number, at least half of them appear extremely vulnerable to various infections. The low HIV sero-prevalence is no cause for complacency. They have not been investigated for other problems such as hepatitis, tuberculosis, and so on.

6.3. Drug Use and Sexual Behaviours

It is well known that the mode of transmission of HIV in India is predominantly heterosexual. Studies from Bangalore have revealed that almost two thirds of HIV-positives have a history of concomitant alcohol use

Chandra et al 1996), and the relationship is complex. What emerges from the RAS about sexual behaviour is startling. Although 86% of the respondents reported being aware of HIV/AIDS, their sexual practices reveal the chasm between knowledge and practice. At least 68% of single males reported having a sexual relationship and 72% of married males reported extra-marital relationships. Such exposure was commonly to commercial sex workers (56%). First sexual exposure occurred at 18 years in males and 16.9 years in females. Only 33% of respondents used condoms in high-risk situations. Although 86% said they knew about HIV/AIDS, they were not asked details. Judging from the responses it appears that there are several misconceptions regarding HIV transmission, and it is uncertain how accurate their knowledge is. The inconsistent use of safe sexual practices found during the interview is yet another cause for concern.

Genitourinary problems were frequent among the respondents, and can be linked to their sexual activity. The sero-prevalence rates of HIV and the rates of other STD's as collated from the secondary data indicate the urgent need for action to educate the public about STD's.

6.4. Drug Use and Crime

Crime associated with drugs was not noted to be a major issue from either the key informant interviews or respondent interviews. However assaultive behaviour and involvement with the police appears frequent.

6.5. Drug Use and Women

Women drug users, although few remain a hidden population. While peer group pressure was found the main reason for drug use in males, the stress of role and psychological conflict appeared to be the main initiating factor in females in this study. The RAS finding of a significant number of males using drugs in heterosexual company, often along with sex introduces the aspect of partner pressure in drug use among women. Use of tranquillisers without prescription, use of alcohol and use of cough syrups is well known but poorly established. All women visiting the general practitioner or specialist's clinic must be especially cautioned against use of psychotropics without prescription.

In commercial sex workers, typically, drug use may occur because of coercion by the customer. Women are also known to use drugs to block off the psychological distress associated with their profession. In addition, even if the woman is not abusing drugs, she may not know how to negotiate safe sex with an intoxicated customer. All these pose serious risks for the commercial sex worker.

6.6. Help Seeking

Treatment service utilisation for the drug habit is low and restricted to the better off sections of the society. Although many NGOs are working in slums and with vulnerable populations such as street children, their efforts in the prevention and management of drug abuse needs to be strengthened. There is also a need to strengthen pro-social institutions, especially for those without social supports and for the development of non-drug related peer group activities.

With the exception of a few of the psychiatrists, most respondents and key informants (ex-users, treating professionals and enforcement officials) did not support harm minimisation as a useful strategy. This may be because harm minimisation is generally only understood as needle exchange programmes or drug substitution programmes. Harm minimisation in terms of safer sex practices, discouragement of injecting drug use, improving access to health care even for users unwilling to presently give up their drug habit need to be developed if the spectrum of harms emanating from drug abuse is to be checked.

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7. Limitations Of The Study

Significant information was gathered by the Rapid Assessment Survey in Bangalore and several important findings made. Yet, there were several limitations that need to be addressed in subsequent attempts. The study is at best a crude estimate of the nature of drug problems in the city.

- There are several categories like students, drivers, and migrant populations that are likely to have higher prevalence of drug abuse. The RSA was not able to uniformly cover all these. The student population is for example likely to have much higher rates of drug abuse than the general community.
- There are various methodological problems in the course of interviewing users. The reliability of much of the information remains a source of concern. For instance, the report of quantity of drug use, and sexual behaviour can be greatly influenced by the person's willingness to reveal such information, social desirability, and the level of co-operation of the respondent. Lack of privacy may also at times have hampered the reliability of the interview. However, many of the respondents appeared enthusiastic to share personal information, and in most cases, the information appears to have a consistent pattern. Simultaneous interviews with key informants also helped to corroborate some of the observed behaviour in the community.
- The study has not been able to satisfactorily address the magnitude of use of psychotropic medication, which still appears to be a hidden problem. The attempt to contact pharmacists to find out what percentage of people used psychotropics without prescription was not successful, as there appeared some hesitancy to reveal such information. The information from the Drug Controller's office did not throw any light on the matter. There is a vibrant pharmaceutical industry with hundreds of psychotropic medications. One of the techniques would have been to look at temporal trends in the sale of psychotropics, but this could not be undertaken due to a paucity of time.
- Another issue we were not satisfactorily able to address was drug use in women. This has mostly been a hidden problem. In the community, conventional case identification techniques do not help in identifying such persons unless they are visible for other reasons (e.g. sex workers).

Despite the limitations, the RSA has helped in getting a comprehensive picture of drug use and its ramifications in the city of Bangalore.

8. Summary And Recommendations

n the late 1990's, India, with a opulation of 944 million was stimated to have 2.25 million ddicts (Drug Demand Reduction Report 1999). Current national stimates of drug use are awaited. Bangalore, which is ome to about 0.6% of the country's population, appears to contribute to about 3-4% of the drug users in the country. While his is significant in terms of absolute numbers, there are many reasons why the drug use scene in Bangalore may not be as alarming in other parts of the country. Preference of alcohol as he main drug of use is one possible reason. Other reasons may be the thrust on education, better opportunities for socialisation, and lesser tolerance or deviance. However, recent rends (drug abuser related data and enforcement data) do suggest a re-emergence of heroin. Inhalant abuse among the poorer classes is also a serious problem.

Bangalore has always had dedicated professionals, both reatment professionals as well as professionals from law enforcement. However, there eeds to be continued monitoring, dialogue between supply and demand reduction agencies, and a more pro-active approach to developing preventive strategies and services.

The following areas merit immediate action:

- Setting up of national and regional monitoring mechanisms for changes in drug abuse patterns.
- Sex education and awareness at all levels, safe sex practices need to be propagated very aggressively
- Such education should not only be provided in formalised settings such as schools and colleges, but also be available for the general and marginalised populations
- Unconventional, interactive modes reaching out to teenagers, especially in the street and slums need to be developed to spread awareness.
- Services for women, including drug abuse prevention education at antenatal clinics, for commercial sex workers and gender sensitive treatment programs must be established
- Non-governmental organisations must be encouraged to move out from centre based treatment to community intervention
- There must be a better networking between the law enforcement agencies and a nodal organisation such as the NCB should play an active role in the collation of such information pertaining to supply reduction
- Documentation must be improved at treatment centres
- Secondary data especially general hospital data recording abuse of alcohol, tobacco and other drugs routinely, and in detail when drug related problems are encountered
- Emergency room admissions and mortality records must mention co-morbid substance use
- Training of manpower is an ongoing need. In addition to strengthening specialist treatment providers, more persons with influence in the community, such as teachers, youth leaders, religious leaders, community leaders need to be trained in strategies to prevent substance use related harm

- Psychotropic use is very poorly understood. The drug control department must be more pro-active in monitoring prescription practices and dispensing practices and provide regular training programme for pharmacists and chemists.
- Training of the medical personnel in the early recognition and management of substance abuse related problems. Both general practitioners and specialists need to be educated about the addictive potential of narcotics and psychotropics, and monitor patients on such drugs carefully, in order to prevent misuse.
- Raising community awareness about drug abuse by providing the right information on drug use and consequences needs to be undertaken.
- Prevention activities also need to focus on healthy lifestyles without mind or mood altering substances. This includes proper recreational facilities for different social groups, peer based activities without drugs, school programmes with a focus on critical thinking and establishment of non-drug use norms.
- In the larger context, the city, country and region need to address several larger issues that influence drug use behaviours including easy availability, ignorance, circumstances and environments conducive to drug use and adverse social factors need to be addressed.

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